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SEQUENCE LISTING

(1) GENERAL INFORMATION:

(i) APPLICANT:

- (A) NAME: Margaret Ann Johns
- (B) STREET:
- (C) CITY:
- (D) STATE:
- (E) COUNTRY:
- (F) POSTAL CODE (ZIP):
- (G) TELEPHONE:
- (H) TELEFAX:

APPLICANT:

- (A) NAME: Brian Jay Moldover
- (B) STREET:
- (C) CITY:
- (D) STATE:
- (E) COUNTRY:
- (F) POSTAL CODE (ZIP):
- (G) TELEPHONE:
- (H) TELEFAX:

APPLICANT:

- (A) NAME: James David Offord
- (B) STREET:
- (C) CITY:
- (D) STATE:
- (E) COUNTRY:
- (F) POSTAL CODE (ZIP):
- (G) TELEPHONE:
- (H) TELEFAX:

(ii) TITLE OF INVENTION: Alpha-2/Delta Gene

(iii) NUMBER OF SEQUENCES: 49

(iv) COMPUTER READABLE FORM:

- (A) MEDIUM TYPE: Floppy disk
- (B) COMPUTER: IBM PC compatible
- (C) OPERATING SYSTEM: PC-DOS/MS-DOS
- (D) SOFTWARE: PatentIn Release #1.0, Version #1.30 (EPO)

(2) INFORMATION FOR SEQ ID NO: 1:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

- (A) NAME/KEY: Coding Sequence
- (B) LOCATION:
- (D) OTHER INFORMATION: $\alpha 2\delta$ -B

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:

CGGGCAGCGCAGCCCGCAGAGGCGCTGCGGCCCGTGACGCCCCGAGGCCCTCGCGGAGAAGGCG
GCGGCGGAGGAGAGGCCGAGTTACCGCCCCGCGCCCCCGCCCCCAACCCCGCCGCGCGCGCGC
CGCCGCCACTGCCCCCCTCCCGCGGCGCGCATCTTGAATGGAACATGGCGGTGCCGGCTCGG
ACCTGCGGCGCCTCTCGGCCCGGCCAGCGCGGACTGCGCGCCCCGCGCCCGCTGCGGCCGCTGCGGCCCGCAC
CCTGGCCCCCGCACCCGCGCGCCGACGTCCGGGCCCCCGCGCCCGCTGTGGCTGCTGCTGCCGCTT
CTACCGCTGCTCGCCGCCCCCGGCGCCTCTGCCTACAGCTTCCCCAGCAGCACACGATGCAGCAC
TGGGCCCCGCGCTCTGGAGCAGGAGGTGACGCGCGTGATGCGGATTTTTGGAGGCGTCCAGCAGCTC
CGTGAGATTTACAAGGACAACCGGAACCTGTTTCAGAGTACAGGAGAATGAGCCTCAGAAGTTGGTG
GAGAAGGTGGCAGGGGACATTGAGAGCCTTCTGGACAGGAAGGTGCAGGCCCTGAAGAGACTGGCT
GATGCTGCAGAGAACTTCCAGAAAGCACACCGCTGGCAGGACAACATCAAGGAGGAAGACATCGTG
TACTATGACGCCAAGGCTGACGCTGAGCTGGACGACCCTGAGAGTGAGGATGTGGAAAGGGGGTCT
AAGGCCAGCACCCCTAAGGCTGGACTTCATCGAGGACCCAACTTCAAGAACAAGGTCAACTATTCA
TACGCGGCTGTACAGATCCCTACGGACATCTACAAAGGCTCCACTGTATCCTCAATGAGTCAAC
TGGACAGAGGCCCTGGAGAATGTGTTTATGGAACACCGCAGACAAGACCCACACTGCTGTGGCAG
GTCTTCGGCAGCGCCACAGGAGTCACTCGCTACTACCCGCGCACCCCGTGGCGAGCCCCCAAGAAG
ATCGACCTGTACGATGTCCGAAGGAGACCCTGGTATATCCAGGGGGCCTCGTCACCCAAAGACATG
GTCATCATCGTGGATGTGAGTGGCAGTGTGAGCGGCCCTGACCCCTGAAGCTGATGAAGACATCTGTC
TGCGAGATGCTGGACACGCTGTCTGATGATGACTATGTGAATGTGGCCTCGTTCAACGAGAAGGCA
CAGCCTGTGTCATGCTTCACACACCTGGTGCAGGCCAATGTGCGCAACAAGAAGGTGTTCAAGGAA
GCTGTGCAGGGCATGGTGGCCAAGGGCACACAGGCTACAAGGCCGGCTTTGAGTATGCCTTTGAC
CAGCTGCAGAACTCCAACATCACTCGGGCCAACCTGCAACAAGATGATCATGATGTTACGGATGGT
GGTGAGGACCGCGTGCAGGACGTCTTTGAGAAGTACAATTGGCCAAACCGGACGGTGCAGCGTGT
ACTTTCTCCGTGGGGCAGCATAACTATGACGTCAACCGCTGCAGTGGATGGCCTGTGCCAACAA
GGCTACTATTTTGAGATCCCTTCCATCGGAGCCATCCGCATCAACACACAGGAATATCTAGATGTG
TTGGGCAGGCCCATGGTGTGGCAGGCAAGGAGGCCAAGCAGGTTCAAGTGGACCAACGTGTATGAG
GATGCACTGGGACTGGGGTTGGTGGTAACAGGGACCCCTCCCTGTTTTCAACCTGACACAGGATGGC
CCTGGGGAAAAGAAGAACCAGCTGATCCTGGGCGTGATGGGCATTGACGTGGCTCTGAATGACATC
AAGAGGCTGACCCCAACTACACGCTTGGAGCCAACGGCTATGTGTTTGCCATTGACCTGAACGGC
TACGTGTTGCTGCACCCCAATCTCAAGCCCCAGACCACCAACTTCCGGGAGCCTGTGACTCTGGAC
TTCTTGATGCGGAGCTAGAGGATGAGAACAAGGAAGAGATCCGTCGGAGCATGATTGATGGCAAC
AAGGGCCACAAGCAGATCAGAACGTTGGTCAAGTCCCTGGATGAGAGGTACATAGATGAGGTGACA
CGGAATACACCTGGGTGCCATTAAGGAGCACTAAGTACAGCCTGGGGCTGGTGCTCCCAACCTAC
AGCACCTTCTACCTCCAAGCCAATCTCAGTGACAGATCCTGCAGGTCAAGTATTTTGAGTTCTTG
CTCCCCAGCAGCTTTGAGTCTGAAGGACACGTTTTTCATTGCTCCAGAGAGTACTGCAAGGACCTG
AATGCCCTCAGACAACAACACCGAGTTCTGAAAACTTTATTGAGCTCATGGAGAAAGTGAATCCA
GACTCCAAGCAGTGCAACAACCTTCTTCTGCACAACCTGATCTTGGACACGGGCATCACGCAGCAG
CTGGTAGAGCGTGTGTGGAGGGACCAGGATCTCAACACGTACAGCCTACTGGCCGTGTTTCGCTGCC
ACAGACGGTGGCATCACCCGAGTCTTCCCCAACAAGGCAGCTGAGGACTGGACAGAGAACCCTGAG
CCCTTCAATGCCAGCTTCTACCGCCGACGCTGGATAACCACGGTTATGTCTTCAAGCCCCACAC
CAGGATGCCCTGTAAAGGCGCTGGAGCTGGAGAAATGACACTGTGGGCATCTCTGTCAGCAGCT
GTGGAGCTCAGCCTAGGCAGGCGCACACTGAGGACGAGTGGTGGGCGTCAAGCTGGACCTAGAG
GCTTGGGCTGAGAAGTTCAAGGTGCTAGCCAGCAACCGTACCCACCAAGACCAGCCTCAGAAAGTGC
GGCCCCAACAGCCACTGTGAGATGGACTGCGAGGTTAACAATGAGGACTTACTCTGTGTCTCAT
GATGATGGAGGATTCTTGGTGTGTCAAACCAGAACCATCAGTGGGACCAGGTGGGCAGGTTCTTC
AGTGAGGTGGATGCCAACCTGATGCTGGCACTCTACAATAACTCCTTCTACACCCGCAAGGAGTCC
TATGACTATCAGGCAGCCTGTGCCCCCTCAGCCCCCTGGCAACCTGGGTGCTGCACCCCGGGGTGTC
TTTGTGCCCCACCGTTGCAGATTTCTTAACCTGGCCTGGTGGACCTCTGCTGCCGCTGGTCCCTG
TTCCAGCAGCTTCTCTACGGCCTCATCTACCACAGCTGGTTCCAAGCAGACCCCGCGGAGGCCGAG
GGGAGCCCCGAGACGCGGAGAGCAGCTGCGTCATGAAACAGACCCAGTACTACTTCGGCTCGGTA
AACGCTTCTTACAACGCCATCATCGACTGCGGAAACTGTCTCCAGGCTGTTCCACGCGCAGAGATG
ACCAACACCAATCTTCTCTTTGTGGTGGCCGAGAAGCCGCTGTGCAGCCAGTGCAGAGGCTGGCCGG
CTGCTGCAGAAGGAGACGCACTGCCCAGCGGACGGCCCGGAGCAGTGTGAGCTAGTGCAGAGACCG
CGATACCGGAGAGGGCCCGCACATCTGCTTCGACTACAACGCGACAGAAGATACCTCAGACTGTGGC
CGCGGGGCTTCTTCCCAGCGTGCCTGGGCGTCTGGTCTCCCTGCAACTGCTGCTCCTCCTGGGC
CTGCCGCCCCGCGCGCAGCCTCAAGTCCTCGTCCACGCCTCTCGCCGCTCTGAGCACCCCTGCCCC
ACCCACCTCCACTCCCACCTCACCCGGCCTCTTCGCCCTTTCCCACCTCCTGCCCCACACTCCCC
GCCTTAGAGCCTCGTCCCTCCCTCACTGAAGGACCTGAGCTGGCCAGGCCCTGAGAGTCTGGTCTG
CGCCTTGGGATGGGGAGTCCCAAAGCGGGACGCCGAGGTGTTTGGCACCCAAATCACATCTCACC

TCCGAAGTGTTCAGTGTCCCCAGACCCTTCTTGCTGCTGGGCTCCCCCAGTGGGATGGGACAG
GGAGGCCACACGCACTGGTGCCAAAACCAGGCCTCTGCTGCCGCCCTTCCTGGAGGCTGCCTATGT
TGGGGGGGACCCTGCCTCAGCTGACCCGGCCTCTCTGCCCCACCCAAGCCCAAACCTTGGTTTCTGT
GAGAATAGTGGAGGAAGGTGAGATGGCCAGTTTGAAGCCTGTGCCCTCCAGCTTAAATCCTAGCAG
GAGAGAGGCTCTGGGGCAGCCCCCATGGGCTCCTGCCCCCTTCAGGCCTACAGCCACATCCCCAAG
CCCACCAGGTGTCAGGATAGTCACAGTGATACCAGTTCAGACACTACCCCATATACACCTGGAACA
TTGAGGATGGAAACTGGACTCACATTTCGACATACCCCACTGGGCACACGCACAAACACACACTA
TGGGGTGGGGTGGGTGTAGGGGCTTACAAAGCCTTACACAGGGCGAGGGGTGGTGGGAGGGTGG
CACCTGCACACTCCATCTCCTGCTCACCACCTGCCTCTAATCTGAGCTGCAGCCTGGCTGGTCCCTC
CCATTTCTAAAGCTGAATGTCAAACAGTGCCAAATGTGGGGCAGGGGGTGAAGAACCCTCTGTCC
CACCCCTAGCCACCAGTGTCTCCAAGTGCCCCCTCACCTCTCCAGGTGCTCATTGTAACCATTTTC
TCACTAGTGTGAGGCCCCCAGTGGGACCACATGCCACTGCCTGCACCTTTCGGGCAGAGGAACCCCC
ACCAGACATCACCCCTTGCCTTAGCAGGGGTGACTTTGTCTCTCCTGGCTGGGCCATCCTTCCGCC
AATCTGGCCCTTACACACTCAGGCCTGTGCCCCTCCCTATCTCCTTCCCACCCCTACACACACAC
TCCCTGCTTGCAGGAGGCCAAACTGTCCCTCCCTTGTGTAACACACACACACACACACACACAG
GTGGGGACTGGGCACAGCTCTTACACCATTCTCTGGTCAATTTCCCCCAAAGGCATCCCAGCCT
GGGGGCCAGTGGGGAAGTGGGGCAAGGGGATATAGTGATGGGGCTCAGATGGACTGGGAGGAGGG
GGAGGGTGATGCATTAATTAATGGCTTCGTAAATTAATGTCATGTTGCTTGTGCTTTCTCAGTGT
GTGTGTGTGGTCCATGCCCACTGCTGGTGCCAGGGTGGGTGTCCATGTGCACCCGGCCTGGATGCC
AGCTGTGTCTTCGGGGGCGTGCCTGTAAGTGTAGTGTAGTCAAGGTGCTCAATGGAGAATATAAAC
ATATACAGAAAAATATATATTTTAAGTTTAAAAAACAGAAAAACAGACAAAACAATCCCCATCAGG
TAGCTGTCTAACCCCCAGCTGGGTCTAATCCTTCTCATTACCCACCCGACCTGGCTGCCCCCTCACC
TTGGGCTGGGGGACTGGGGGGCCATTTCTTTTCTCTGCCCTTTTTTTGTTGTTCTATTTTGTACA
GACAAGTTGGAACAAACAGCGACAAAAAAGTCAAGAACTTTGTAAAATATCGTGTGTGTGATT
CCTTGTAATAATTTTCAAATGGTTTATTACAGAAGATCAGTTATTAAATAATGTTTCATATTTTCA
CTTC

(2) INFORMATION FOR SEQ ID NO: 2:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

(ix) FEATURE:

- (A) NAME/KEY: Coding Sequence
- (B) LOCATION:
- (D) OTHER INFORMATION: $\alpha 2\delta$ -B

(iii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:

MAVPARTCGASRPGPARTARWPWPGCGPHPGPTRRPTSGPPRPLWLLLPLLLAAPGASAYSFPQ
QHTMQHWARRLEQEV DGVMRIFGGVQQLREIYKDNRNLFVQENEPQKLVEKVAGDIESLLDRKVQ
ALKRLADAAENFQKAHRWQDNIKEEDIVYYDAKADAELDDPESEDVERGSKASTLRDLDFIEDPNFK
NKVNYSYAAVQIPTDIYKGSTVILNELNWTEALENVFMENRRQDPTLLWQVFGSATGVTRYYPATP
WRAPKKIDLYDVRRRPWYIQGASSPKDMVIVDVSGSVGLTLKLMKTSVCEMLDLSDDDYVNVA
SFNEKAQPVSCFTHLVQANVRNKKVFKEAVQGMVAKGTTGYKAGFEYAFDQLQNSNITRANCNKMI
MMFTDGGEDRVQDVFKEYNWPNRVTVRVFTFSVGQHNYDVTPLQWMAKNGGYFEI PSIGAIRINT
QEYLDVLGRPMVLGKEAKQVQWNTNVEDALGLGLVVTGTLPVFNLTQDGPGEKKNQLILGVMGID
VALNDIKRLTPNYTLGANGYVFAIDLNGYVLLHPNLKPQTTFNREPVTLDFLDAELEDENKEEIRR
SMIDGNKGHKQIRTLVKS LDERYIDEVTRNYTWVPIRSTNYSGLVLPYPSTFYQLANLSDQILQV
KYFEFLLPSSFESSEGHVFIAPREYCKDLNASDNNTFLKNFIELMEKVTPDSKQCNNFLHLNLILD
TGITQQLVERVWRDQDLNTYSLLAVFAATDGGITRVFPNKAEDWTENPEPFNASFYRRSLDNHGY
VFKPPHQDALLRPLELENDTVGILVSTAVELSLGRRTLRAVVGVKLDLEAWAEKFKVLASNRTHQ
DQPQKCGPNSHCEMDCEVNNEDLLCVLIDDGGFLVLSNQNHQWDQVGRFFSEVDANLMLALYNSF

YTRKESYDYQAACAPQPPGNLGAAPRGVFPVPTVADFLNLAWWTSAAAWSLFQQLLYGLIYHSWFQA
DPAEAEGSPETRESSCVMKQTQYYFGSVNASYNAIIDCGNCSRLFHAQRLTNTNLLFVVAEKPLCS
QCEAGRLLQKETHCPADGPEQCELVQRPRYRRGPHICFDYNATEDTSDCGRGASFPPSLGVLVSLQ
LLLLLGLPPRPQPQVLVHASRRL

(2) INFORMATION FOR SEQ ID NO: 3:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

- (A) NAME/KEY: Coding Sequence
- (B) LOCATION:
- (D) OTHER INFORMATION: $\alpha 2\delta$ -C

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:

TACTATAGGGCGGCCGCGAATTCGGCACGAGGCGGCGCGGAGCGGAGCAGGCAGCCCCGCGCGCTC
GCCCACCGCCCGCTCCGCGCAGCTCCCCGCGGCCGCTCTCGTCGCCGCCGCGAGCGGGCGCGTCGGA
GGGAGCCCAGCATGGCCGGGCGGGCTCGCCGCGCCGCGCGTCCCGGGGGGCCTCGGCGCTTCTCG
CTGCCGCGCTTCTCTACGCCGCGCTGGGGGACGTGGTGCGCTCGGAGCAGCAGATACCGCTCTCCG
TGGTGAAGCTCTGGGCCTCGGCTTTTGGTGGGGAGATAAAATCCATTGCTGCTAAGTACTCCGGTT
CCCAGCTTCTGCAAAAGAAATACAAAGAGTATGAGAAAGACGTTGCCATAGAAGAAATTGATGGCC
TCCAACTGGTAAAGAAGCTGGCAAAGAACATGGAAGAGATGTTTACAAAGAAGTCTGAGGCCGTCA
GGCGTCTGGTGGAGGCTGCAGAAGAAGCACACATGAAACATGAATTTGATGCAGACTTACAGTATG
AATACTTCAATGCTGTGCTGATAAATGAAAGGGACAAAGACGGGAATTTTTTGGAGCTGGGAAAGG
AATTCATCTTAGCCCCAAATGACCATTTTAATAATTTGCCTGTGAACATCAGTCTAAGTGACGTCC
AAGTACCAACGAACATGTACAACAAAGACCCTGCAATTGTCAATGGGGTTTATTGGTCTGAATCTC
TAAACAAAGTTTTTTGTAGATAACTTTGACCGTGACCCATCTCTCATATGGCAGTACTTTGGAAGTG
CAAAGGGCTTTTTTAGGCAGTATCCGGGGATTAAATGGGAACCAGATGAGAATGGAGTCATTGCCT
TCGACTGCAGGAACCGAAAATGGTACATCCAGGCAGCAACTTCTCCGAAAGACGTGGTCATTTTAG
TTGACGTCAGTGGCAGCATGAAAGGACTCCGCTGACTATCGCGAAGCAACAGTCTCATCCATTT
TGGATACACTGGGGATGATGACTTCTTCAACATAATTGCTTATAATGAGGAGCTTCACTATGTGG
AACCTTGCTGAATGGAACCTTTGGTGCAAGCCGACAGGACAAACAAAGAGCACTTCAGGGAGCATC
TGGACAAACTTTTCGCCAAAGGAATTGGAATGTTGGATATAGCTCTGAATGAGGCCTTCAACATTC
TGAGTGATTTCAACCACACGGGACAAGGAAGTATCTGCAGTCAGGCCATCATGCTCATAACTGATG
GGGCGGTGGACACCTATGATACAATCTTTGCAAAATACAATTGGCCAGATCGAAAGGTTTCGCATCT
TCACATACCTCATTTGGACGAGAGGCTGCGTTTGCAGACAATCTAAAGTGGATGGCCTGTGCCAACA
AAGGATTTTTTACCAGATCTCCACCTTGGCTGATGTGCAGGAGAATGTCATGGAATACCTTCACG
TGCTTAGCCGGCCCCAAAGTCATCGACCAGGAGCATGATGTGGTGTGGACCGAAGCTTACATTGACA
GCACTCTGACTGATGATCAGGGCCCCGTCCTGATGACCACTGTAGCCATGCCCTGTGTTTAGTAAGC
AGAACGAAACCAGATCGAAGGGCATTCTTCTGGGAGTGGTTGGCACAGATGTCCCAGTGAAAGAAC
TTCTGAAGACCATCCCCAAATACAAGTTAGGGATTACCGGTTATGCCTTTGCAATCACAAATAATG
GRTATATCCTGACGCATCCGGAACCTCAGGCTGCTGTACGAAGAAGGAAAAAGCGAAGGAAACCTA
ACTATAGTAGCGTTGACCTCTCTGAGGTGGAGTGGGAAGACCGAGATGACGTGTTGAGAAATGCTA
TGGTGAATCGAAAGACGGGGAAGTTTTCCATGGAGGTGAAGAAGACAGTGGACAAAGGGAAACGGG
TTTTGGTGATGACAAATGACTACTATTATACAGACATCAAGGGTACTCCTTTTCAGTTTAGGTGTGG
CGCTTTCAGAGGTCATGGGAAATATTTCTTCCGAGGGAATGTAACCATCGAAGAAGGCCTGCATG
ACTTAGAACATCCCGATGTGTCTTGGCAGATGAATGGTCTTACTGCAACACTGACCTACACCCTG
AGCACCGCCATCTGTCTCAGTTAGAAGCGATTAAGCTCTACCTAAAAGGCAAGAACCTCTGTCTCC
AGTGTGATAAAGAATTGATCCAAGAAGTCCTTTTTGACGCGGTGGTGAGTGCCCCCATTTGAAGCGT
ATTGGACCGCTGGCCCTCAACAAATCTGAAAATCTTGACAAGGGCGTGGAGGTTGCCTTCCTCG
GCACTCGCACGGGCCTCTCCAGAATCAACCTGTTTGTGGGGCTGAGCAGCTCACCAATCAGGACT

TCCTGAAAGCTGGCGACAAGGAGAACATTTTTTAACGCAGACCATTTCCTCTCTGGTACCGAAGAG
CCGCTGAGCAGATTCCAGGGAGCTTCGTCTACTCGATCCCATTCAGCACTGGACCAGTCAATAAAA
GCAATGTGGTGACAGCAAGTACATCCATCCAGCTCCTGGATGAACGAAATCTCCTGTGGTGGCAG
CTGTAGGCATTTCAGATGAACTTGAATTTTTTCCAAAGGAAGTTCTGGACTGCCAGCAGACAGTGTG
CTTCCCTGGATGGCAAATGCTCCATCAGCTGTGATGATGAGACTGTGAATTGTTACCTCATAGACA
ATAATGGATTTATTTTGGTGTCTGAAGACTACACACAGACTGGAGACTTTTTTGGTGAGATCGAGG
GAGCTGTGATGAACAAATTGCTAACAATGGGCTCCTTTAAAAGAATTACCCTTTATGACTACCAAG
CCATGTGTAGAGCCAACAAGGAAAGCAGCGATGGCGCCCATGGCCTCCTGGATCCTTATAATGCCT
TCCTCTCTGCAGTAAAAATGGATCATGACAGAACTTGTCTTGTTCCTGGTGGAAATTTAACCTCTGCA
GTTGGTGGCACTCCGATATGACAGCTAAAGCCCAGAAATTGAAACAGACCCTGGAGCCTTGTGATA
CTGAATATCCAGCATTCGTCTCTGAGCGCACCATCAAGGAGACTACAGGGAATATTGCTTGTGAAG
ACTGCTCCAAGTCCTTTGTTCATCCAGCAAATCCCAAGCAGCAACCTGTTTCATGGTGGTGGTGGACA
GCAGCTGCCTCTGTGAATCTGTGGCCCCCATCACCATGGCACCCATTGAAATCAGGTATAATGAAT
CCCTTAAGTGTGAACGTCTAAAGGCCAGAAAGATCAGAAGGCGCCAGAAATCTTGTTCATGGCTTCC
ATCCTGAGGAGAATGCAAGGGAGTGTGGGGGTGCGCCGAGTCTCCAAGCCCAGACAGTCCCTCCTTC
TGCTCCCTCTGCTTTTGATGCTCTTCTCAAGGTGACACTGACTGAGATGTTCTCTTACTGACTGAG
ATGTTCTCTTGGCATGCTAAATCATGGATAAACTGTGAACCAAAATATGGTGCAACATACGAGACA
TGAATATAGTCCAACCATCAGCATCTCATCATGATTTTAAACTGTGCGTGATATAAACTCTTAAAG
ATATGTTGACAAAAAGTTATCTATCATCTTTTTACTTTGCCAGTCATGCAAATGTGAGTTTGCCAC
ATGATAATCACCTTCATCAGAAATGGGACCGCAAGTGGTAGGCAGTGTCCCTTCTGCTTGAACC
TATTGAAACCAATTTAAACTGTGTACTTTTTTAAATAAAGTATATTAAATCATAAAAA
AAAAAA

(2) INFORMATION FOR SEQ ID NO: 4:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

- (A) NAME/KEY: Coding Sequence
- (B) LOCATION:
- (D) OTHER INFORMATION: $\alpha 2\delta$ -D

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:

CCATGCCTGCAACTCCCAACTTCCTCGCAAACCCAGCTCCAGCAGCCGCTGGATTCCCTCCAGC
CAATGCCCCTGGCCTGGGCCTTTGTGCAGAAGACCTCGGCCCTCCTGTGGCTGCTGCTTCTAGGCA
CCTCCCTGTCCCCTGCGTGGGGACAGGCCAAGATTCTCTGGAACAGTGAAGCTATGGGCTGACA
CCTTCGGCGGGGACCTGTATAACACTGTGACCAAATACTCAGGCTCTCTCTTGCTGCAGAAGAAGT
ACAAGGATGTGGAGTCCAGTCTGAAGATCGAGGAGGTGGATGGCTTGGAGCTGGTGAGGAAGTTCT
CAGAGGACATGGAGAACATGCTGCGGAGGAAAGTCGAGGCGGTCCAGAATCTGGTGGAAGCTGCCG
AGGAGGCCGACCTGAACCACGAATTCAATGAATCCCTGGTGTTCGACTATTACAACCTCGGTCTGTA
TCAACGAGAGGGACGAGAAGGGCAACTTCGTGGAGCTGGGCGCCGAGTTCCTCCTGGAGTCCAATG
CTCACTTCAGCAACCTGCCGGTGAACACCTCCATCAGCAGCGTGCAGCTGCCCCACCAACGTGTACA
ACAAAGACCCAGATATTTTAAATGGAGTCTACATGTCTGAAGCCTTGAATGCTGTCTTCGTGGAGA
ACTTCCAGAGAGACCCAACGTTGACCTGGCAATATTTTGGCAGTGCAACTGGATTCTTCAGGATCT
ATCCAGGTATAAAATGGACACCTGATGAGAATGGAGTCATTACTTTTGAAGTGCAGAACCGCGGCT
GGTACATTCAAGCTGCTACTTCTCCCAAGGACATAGTGATTTTGGTGGACGTGAGCGGCAGTATGA
AGGGGCTGAGGATGACTATTGCCAAGCACACCATCACCACCATCTTGGACACCCTGGGGGAGAATG
ACTTCGTTAATATCATAGCGTACAATGACTACGTCCATTACATCGAGCCTTGTTTTAAAGGGATCC
TCGTCCAGCGGACCGAGACAATCGAGAGCAATTTCAAACCTGCTGGTGGAGGAGTTGATGGTCAAAG
GTGTGGGGTCTGTGGACCAAGCCCTGAGAGAAGCCTTCCAGATCCTGAAGCAGTTCCAAGAGGCCA

AGCAAGGAAGCCTCTGCAACCAGGCCATCATGCTCATCAGCGACGGCGCCGTGGAGGACTACGAGC
CGGTGTTTTGAGAAGTATAACTGGCCAGACTGTAAGGTCCGAGTTTTCTACTTACCTCATTGGGAGAG
AAGTGTCTTTTGCTGACCGCATGAAGTGGATTGCATGCAACAACAAAGGCTACTACACGCAGATCT
CAACGCTGGCGGACACCCAGGAGAACGTGATGGAATACCTGCACGTGCTCAGCCGCCCCATGGTCA
TCAACCACGACCACGACATCATCTGGACAGAGGCCCTACATGGACAGCAAGCTCCTCAGCTCGCAGG
CTCAGAGCCTGACACTGCTCACCCTGTGGCCATGCCAGTCTTCAGCAAGAAGAACGAAACGCGAT
CCCATGGCATTCTCCTGGGTGTGGTGGGCTCAGATGTGGCCCTGAGAGAGCTGATGAAGCTGGCGC
CCCGGTACAAGCTTGGAGTGCACGGATACGCCTTTCTGAACACCAACAATGGCTACATCCTCTCCC
ATCCCGACCTCCGGCCCCCTGTACAGAGAGGGGAAGAACTAAAACCCAAACCTAACTACAACAGTG
TGGATCTCTCCGAAGTGGAGTGGGAAGACCAGGCTGAATCTCTGAGAACAGCCATGATCAATAGGG
AAACAGGTACTCTCTCGATGGATGTGAAGGTTCCGATGGATAAAGGGAAGCGAGTTCTTTTCCTGA
CCAATGACTACTTCTTCACGGACATCAGCGACACCCCTTTCAGTTTGGGGGTGGTGTGTCCCGGG
GCCACGGAGAATACATCCTTCTGGGGAACACGTCTGTGGAAGAAGGCCTGCATGACTTGCTTCACC
CAGACCTGGCCCTGGCCGGTGAAGTGGATCTACTGCATCACAGATATTGACCCAGACCACCGGAAGC
TCAGCCAGCTAGAGGCCATGATCCGCTTCCCTCACCAGGAAGGACCAGACCTGGAGTGTGACGAGG
AGCTGGTCCGGGAGGTGCTGTTTTGACGCGGTGGTGACAGCCCCCATGGAAGCCTACTGGACAGCGC
TGGCCCTCAACATGTCCGAGGAGTCTGAACACGTGGTGGACATGGCCTTCTGGGCACCCGGGCTG
GCCTCTGAGAAGCAGCTTGTTTCGTGGGCTCCGAGAAGGTCTCCGACAGGAAGTTCTTGACACCTG
AGGACGAGGCCAGCGTGTTCACCCTGGACCGCTTCCCGCTGTGGTACCGCCAGGCCCTCAGAGCATC
CTGCTGGCAGCTTCTGTTCAACCTCCGCTGGGCAGAAGGACCAGAAAGTGCGGGTGAACCCATGG
TGGTGACGGCAAGCACAGCTGTGGCGGTGACCGTGGACAAGAGGACAGCCATTGCTGCAGCCGCGG
GCGTCCAAATGAAGCTGGAATTCCTCCAGCGCAAATTCCTGGGCGGCAACGCGGCAGTGCAGCACTG
TGGATGGGCGGTGCACACAGAGCTGCGAGGACAGTGATCTGGACTGCTTCGTATCGACAACAACG
GGTTCATCTGATCTCCAAGAGGTCCCGAGAGACGGGAAGATTTCTGGGGGAGGTGGATGGTGCTG
TCCCTGACCCAGCTGCTCAGCATGGGGGTGTTACGCCAAGTGACTATGTATGACTATCAGGCCATGT
GCAAACCCCTCAGAGTCAACACCACAGTGCAGCCCAGCCCCCTGGTCAGCCCAATTTCTGCCTTCTTGA
CGGCGACACAGGTGGCTGCTGCAGGAGCTGGTGTGTTCTGCTGGAGTGGAGTGTCTGGGGCTCCT
GGTACGACAGAGGGGCGGAGGCCAAAAGTGTCTTCCATCACTCCCACAAACACAAGAAGCAGGACC
CGCTGCAGCCCTGCGACACGGAGTACCCCGTGTTCGTGTACCAGCCGGCCATCCGGGAGGCCAACG
GGATCGTGGAGTGCGGGCCCCGTCAGAAAGGTATTTGTGGTGCAGCAGATTCCTCAACAGTAACCTCC
TCCTCCTGGTGACAGACCCACCTGTGACTGCAGCATCTTCCCACAGTGTGCAGGAGGCGACAG
AAGTCAAATATAATGCCTCTGTCAAATGTGACCGGATGCGCTCCCAGAAGCTCCGGCGGCGACAG
ACTCCTGCCACGCCTTCCATCCAGAGGAGAATGCCAGGACTGCGGCGGCGCCTCGGACACCTCAG
CCTCGCCGCCCCCTACTCCTGTGCTGTGTGCTGCTGGGGGCTACTGCCCCAACTCCTGCGGTGAC
ACCACCCAGCCTGACCTGTGTTTTGGCAAGGTGATCCTTCCAGAGCCATCCCCAAAAGTCAGCACT
GACATGGGATGCAGCTAACTGCAGTTGGGTGCGCCCCCAGGCCAACGCTCCTCTCAATCCTGGGCTG
GTGGCCCCCTGGCTCCGGAGAATGCTGGATGGAACAGGAAACCAATCACCTGGCACCCTTTCAAGA
TGCTTCATGGTGCCCGGTACCATCTGCCCTAGGTCTCAACATGAGCATACTTCTGACCTAACCTTC
CTGTCTCCTCTTCGGGAAGCCAGCGTGAGCTCAGCTTGGACCAAGACAAAATAATTTAGTTCTTCC
TGTAATCCAGAGTCCAGACCCAGCCAAGAAAGGGTCAGTTGTTTCTGACCTTTCTGTGCGGAGTGG
TCTCTGGTAGAACCAAGGACTTCTGGGTACTGAGAAGCAGCAGCAGAATGAGGCCAAATGCAGAG
ATGAGGCTAAGGCAAGAATATGCCCCAACTAAAGCATAGATTCCCCAAAGTGAGGCTCATGGTGGG
AGGCCACTCACCTTCTTAGCTGCTGCTCGAAAAGGTTTTGACTGTGTTGGGGTGGGGGTGGGTAA
GGGAATGGTCAAGACTGAGAAAGGAATGAAATCCATTCAGGAAATATCGACAGGGCTACACGTGAT
GTCCCCAACTGCTGCTATTGAAGAACTTCCCCAACTTCTTTACAAAGCCCTAAAGGAAAGTTTG
CATCTATGAAAAGCCAATAGGCTGAGACATCCAATTGCTGCATGGAAATTGATGTACATTCAGGGG
ACGGCAAAAATAGCTGTAAAATAGTGAAAAAGAGCAGTGGTTGTGCTCTTTTCTGGCCAATGATTT
ACAAAAGAATCTACTTGACTCTGTCCCTGGAGTGAAATCCTTAGGGTTGGAACCTGTGGGAACATT
CCAATTTGCTAAGCAGGGTCCACTGGGAGGGAAGCTCTATCTGGGAACCTACCCCCAGCGCACACA
CATCTCCCCCAGGGTCCCAAGGCCCCGACGCTTCTCCCCCGACCAACCCCAAGACCTGGATCC
AGGAGACAACAGTCTCCACATGAGAGCAACATTAAGGGCAAGCCATGGAGAAATGTGGGAGAGGC
CGGCTCAAAATCTTTCCATTTAACAACCCCCAGTGATGGGTATGGACAGCATGCAGGGCTTTTGGG
GCGCTTCCCCCGCTCCTCCATCACCTCAGCTCCACACTTCAAAGTTCAAAGTTCAAAGCTGTTC
AAGTTTCTTACCAGCAAATAGCCCTAACTTGCTCTAGAGTAGGCCAAATGCCAACTCTGTAAAAC
ACACTTACATTATCGGTTACAGAATGTCACTCTTACCATCATGTCTTGCAACAACCTGTGAGGGC
AGTATTAAATGCCCCCTTACAGCAGAAGACACTGCAGCTCGAAGACAGCTTAAGTGGCAGAATAATG
CTAGAACAGCTAAGGTTTACATGTACCAAATAACATGTTTCAGCTCATTCCATCCTCACAACAGCC
CCCTGAAAGTGGGTACTATCATTAGTCCCATGTTATAGAACTGCAGCAGAGTTGAAAATTGCTC

CAAATTACCGGAAGAGTGTATGAAGATTGAATGTGATGTATTACGTAACATGCTTGAAACTGCCT
GGCATATACTAAACGCTAAATAAATACATGCTAACTGCAAAAAAAAAAAAAAAAAAAAAA

(2) INFORMATION FOR SEQ ID NO: 5:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

(ix) FEATURE:

- (A) NAME/KEY:
- (B) LOCATION:
- (D) OTHER INFORMATION: $\alpha 2\delta$ -C

(iii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5:

MAGPGSPRRASRGASALLAAALLYAALGDVVRSEQQIPLSVVKLWASAFGGEIKSIAAKYSGSQLL
QKKYKEYEKDVAIEEIDGLQLVKKLAKNMEEMFHHKSEAVRRLVEAAEEAHLKHEFDADLQYEFN
AVLINERDKDGNFLELGKEFILAPNDHFNNLPVNIISLSDVQVPTNMYNKDPAIVNGVYWSES LNKV
FVDNFD RDP SLIWQYFGSAKGFFRQYPGIKWE PDENG V IAFDCRNK WYIQAATSPKDVVILVDVS
GSMKGLRLTIAKQTVSSILDTLGDDDFNIIAYNEELHYVEPCLNGTLVQADRTNKEHFREHLDKL
FAKGIGMLDIALNEAFNILSDFNHTGQGSICSQAIMLITDGAVD TYDTIFAKYNWPDRKVRIFTYL
IGREAA FADNLKWMACANKGFFTQISTLADVQENVMEYLHVL SRPKVIDQEH DVVWTEAYIDSTLT
DDQGPVLMTTVAMPVFSKQNETRSK GILLGVVGTDVPVKELLKTIPKYKLG IGHYAFAITNNGYIL
THPELRLLYEEGKKRRKPNYSSVDLSEVEWEDRDDVLRNAMVNRKTGKFSMEVKKTVDKGKRVLM
TNDYYYTDIKGTPFSLGVALSRGHGKYFFRGNTIEEGLHDLEHPDVSLADEWSYCNTDLHPEHRH
LSQLEAIKLYLKKEPLLQCDKELIQEVLFDVVSAPIEAYWTS LALNKSENSDKGVEVAFLGTRT
GLSRINLFVGAELTNQDFLKAGDKENIFNADHFPLWYRRAAEQIPGSFVYSIPFSTGPNKSNVV
TASTSIQLLDERKSPVVAAVGIQMKLEFFQRKFWTASRQCASLDGKCSISCDDET VNCYLIDNNGF
ILVSEDYTQTGDFGEIEGAVMNKLLTMSFKRITLYDYQAMCRANKESSDGAHGLLD PYN AFLSA
VKWIMTELVLFLVEFNLC SWWHSDMTAKAQK LKQTL EPCDTEYPAFVSERTIKETTGN IACEDCSK
SFVIOQIPSSNLFMVVDSSCLCESVAPITMAPIEIRYNESLKCERLKAQKIRRRPESCHGFHPPEE
NARECGGAPSLQAQTVLLLLPLLLMLFSR

(2) INFORMATION FOR SEQ ID NO: 6:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

(ix) FEATURE:

- (A) NAME/KEY:
- (B) LOCATION:
- (D) OTHER INFORMATION: $\alpha 2\delta$ -D

(iii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6:

MPATPNFLANPSSSSRWIPLQMPVAWAFVQKTSALLWLLLLGTSLSPAWGQAKIPLKLVWADT
FGGDLYNTVTKYSGSLLLQKKYKDVESLKEEVDGLELVRKFSEDMENMLRRKVEAVQNLVEAAE
EADLNHEFNESLVFDYNSVLINERDEKGNFVELGAEFLLSNHFSNLPVNTSISVQLPTNVYN
KDPDILNGVYMSEALNAVFVENFQRDPTLTWQYFGSATGFFRIYPGIKWTPDENGVIITDCRNRGW
YIQAATSPKDIVILVDVSGSMKGLRMTIAKHTITITLDTLGENDFVNI IAYNDYVHYIEPCFKGIL
VQADRDNREHFKLLVEELMVKGVGVDQALREAFQILKQFQEAQKQSLCNQAIMLISDGAVEDYEP
VFKEYNWPDCVKRVFTYLLIGREVSFADRMKWIACNNKGYTQISTLADTQENVMEYLHVL SRPMVI
NHDHDIIWTEAYMDSKLLSSQAQSLTLLTTVAMPVFSKKNETRSHGILLGVVGS DVALRELMKLAP
RYKLG VHG YAFLNTNNGYILSHPDRLPLYREGKKLKPKPNYNSVDLSEVEWEDQAESLRTAMINRE
TGTLSMDVKVPM DKGKRVLFLTNDYFFTDISDTPFSLGVVLSRGHGEYILLGNTSVEEGLHDL LHP
DLALAGDWIYCITDIDPDHRKLSQLEAMIRFLTRKDPDLECEELVREVLFD AVVTAPMEAYWTAL
ALNMSESEHVVDMAFLGTRAGLLRSSLFVGSEKVS DRKFLTPEDEASVFTLDRFPLWYRQASEHP
AGSFVFNLRWAEGPESAGEPMVVTASTAVAVTVDKRTAIAAAAAGVQMKLEFLQRKFWAATRQCSTV
DGPCTQSCEDSDLD CFVIDNNGFILISKRSRETGRFLGEVDGAVLTQLLSMGVFSQVTMYDYQAMC
KPSSHHHSAAQPLVSPISAFLTATR WLLQELVLFLEWSVWGSWYDRGA EAKSVFHSHKHKKQDP
LQPCDTEYPVFVYQPAIREANGIVECGPCQKV FVVQQIPNSNLLLLVTDPTCDCSI FPPVLQEATE
VKYNASVKCDRMR SQKLRRRPDSCHAFHPEENAQDCGGASDTSASP LLLLLPVCAGLLPQLLR

(2) INFORMATION FOR SEQ ID NO: 7

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

- (A) NAME/KEY: Coding Sequence
- (B) LOCATION:
- (D) OTHER INFORMATION:

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:

AGGATGGCCCTGGGGAAAAGAAGA

(2) INFORMATION FOR SEQ ID NO: 8

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

- (A) NAME/KEY: Coding Sequence
- (B) LOCATION:
- (D) OTHER INFORMATION: 3' primer for $\alpha 2\delta$ -B

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:

ATCATCAATGAGGACACAGA

(2) INFORMATION FOR SEQ ID NO: 9

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

- (A) NAME/KEY: Coding Sequence

- (B) LOCATION:

- (D) OTHER INFORMATION: 5' primers used for RT-PCR of $\alpha 2\delta$ -C

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:

AGAACGAAACCAGATCGAAG

(2) INFORMATION FOR SEQ ID NO: 10

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

- (A) NAME/KEY: Coding Sequence

- (B) LOCATION:

- (D) OTHER INFORMATION: 3' primer used for RT-PCR of $\alpha 2\delta$ -C

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:

CGATTCAACCATAGCATTTCTC

(2) INFORMATION FOR SEQ ID NO: 11

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

- (A) NAME/KEY: Coding Sequence

- (B) LOCATION:

(D) OTHER INFORMATION: primer for $\alpha 2\delta$ -C

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:

CTACCAAGCCATGTGTA

(2) INFORMATION FOR SEQ ID NO: 12

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:

(B) TYPE:

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: 5' primer to amplify mouse $\alpha 2\delta$ -C

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:

AGAACGAAACTAGGTCAAAG

(2) INFORMATION FOR SEQ ID NO: 13

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:

(B) TYPE:

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: 3' primer to amplify mouse $\alpha 2\delta$ -C

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 13:

CGATTTACCATGGCATTTCGT

(2) INFORMATION FOR SEQ ID NO: 14

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:

(B) TYPE:

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: rat sequence for $\alpha 2\delta$ -C

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 14:

GATTCTTCTGGGTGTGGTTGGCACAGATGTCCCAGTAAAAGAGCTTCTGAAGACCATCCCCAAATA
CAAGTTAGGAATTCATGGTTATGCCTTTGCCATCACGAATAATGGATACATCTTGACACACCCGGA
GCTCAGGCCCTGTATGAAGAAGGGAAAAAGCGAAGGAAGCCTAATTACAGTAGTGTGGATCTCTC
GGAAGTCGAGTGGGAAGATCGGGATGATGTGTACGAAATGCCATGGTAAATCGAC

(2) INFORMATION FOR SEQ ID NO: 15

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:

(B) TYPE:

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: (1690-1761) $\alpha 2\delta$ -D, human splice

variant

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 15:

CCATGCCTGCAACTCCCAACTTCCTCGCAAACCCAGCTCCAGCAGCCGCTGGATTCCCTCCAGC
CAATGCCCCGTGGCCTGGGCCTTTGTGCAGAAGACCTCGGCCCTCCTGTGGCTGCTGCTTCTAGGCA
CCTCCCTGTCCCTGCGTGGGGACAGGCCAAGATTCCCTCTGGAAACAGTGAAGCTATGGGCTGACA
CCTTCGGCGGGGACCTGTATAACACTGTGACCAAATACTCAGGCTCTCTCTTGCTGCAGAAGAAGT
ACAAGGATGTGGAGTCCAGTCTGAAGATCGAGGAGGTGGATGGCTTGGAGCTGGTGAGGAAGTTCT
CAGAGGACATGGAGAACATGCTGCGGAGGAAAGTCGAGGCGGTCCAGAATCTGGTGGAAAGCTGCCG
AGGAGGCCGACCTGAACCACGAATTCAATGAATCCCTGGTGTTCGACTATTACAACCTCGGTCCCTGA
TCAACGAGAGGGGACGAGAAGGGCAACTTCGTGGAGCTGGGCGCCGAGTTCCTCCTGGAGTCCAATG
CTCACTTCAGCAACCTGCCGGTGAACACCTCCATCAGCAGCGTGCAGCTGCCCACCAACGTGTACA
ACAAAGACCCAGATATTTTAAATGGAGTCTACATGTCTGAAGCCTTGAATGCTGTCTTCCGTGGAGA
ACTTCCAGAGAGACCCAACGTTGACCTGGCAATATTTTGGCAGTGCAACTGGATTCTTCAGGATCT
ATCCAGGTATAAAATGGACACCTGATGAGAATGGAGTCATTACTTTTGAAGTCCCGAAACCGCGGCT
GGTACATTCAAGCTGCTACTTCTCCCAAGGACATAGTGATTTTGGTGGACGTGAGCGGCAGTATGA
AGGGGCTGAGGATGACTATTGCCAAGCACACCATCACCACCATCTTGGACACCCCTGGGGGAGAATG
ACTTCGTTAATATCATAGCGTACAATGACTACGTCCATTACATCGAGCCTTGTTTTAAAGGGATCC
TCGTCCAGGCGGACCGAGACAATCGAGAGCATTTCAAACCTGCTGGTGGAGGAGTTGATGGTCAAAG
GTGTGGGGGTGCTGGACCAAGCCCTGAGAGAAGCCTTCCAGATCCTGAAGCAGTTCCAAGAGGCCA
AGCAAGGAAGCCTCTGCAACCAGGCCATCATGCTCATCAGCGACGGCGCCGTGGAGGACTACGAGC
CGGTGTTTGAGAAGTATAACTGGCCAGACTGAAGGTCCGAGTTTTCACTTACCTCATTTGGGAGAG
AAGTGCTTTTTGCTGACCGCATGAAGTGGATTGCATGCAACAACAAGGCTACTACACGCAGATCT
CAACGCTGGCGGACACCCAGGAGAACGTGATGGAATACCTGCACGTGCTCAGCCGCCCCATGGTCA
TCAACCACGACCACGACATCATCTGGACAGAGGCCTACATGGACAGCAAGCTCCTCAGCTCGCAGG

CTCAGAGCCTGACACTGCTCACCCTGTGGCCATGCCAGTCTTCAGCAAGAAGAACGAAACGCGAT
CCCATTGGCATTCTCCTGGGTGTGGTGGGCTCAGATGTGGCCCTGAGAGAGCTGATGAAGCTGGCGC
CCCGGTACAAGCTTGGAGTGCACGGATACGCCTTTCTGAACACCAACAATGGCTACATCCTCTCCC
ATCCCGACCTCCGGCCCCCTGTACAGAGAGGGGAAGAACTAAAACCCAAACCTAACTACAACAGTG
TGGATCTCTCCGAAGTGGAGTGGGAAGACCAGGCTGAATCTAAGCGAGTTCTTTTCTGACCAATG
ACTACTTCTTCACGGACATCAGCGACACCCCTTTCAGTTTGGGGGTGGTGTCTCCCGGGGCCACG
GAGAATACATCCTTCTGGGGAACACGTCTGTGGAAGAAGGCCTGCATGACTTGCTTACCCAGACC
TGGCCCTGGCCGGTGAATGCTGATCTACTGCATCAGAGATATTGACCCAGACCACCGGAAGCTCAGCC
AGCTAGAGGCCATGATCCGCTTCTCACCAGGAAGGACCCAGACCTGGAGTGTGACGAGGAGCTGG
TCCGGGAGGTGCTGTTTGTACGCGGTGGTGACAGCCCCATGGAAGCCTACTGGACAGCGCTGGCCC
TCAACATGTCCGAGGAGTCTGAACACGTGGTGGACATGGCCTTCTGGGCACCCGGGCTGGCCTCC
TGAGAAGCAGCTTGTTCTGTGGGCTCCGAGAAGGTCTCCGACAGGAAGTTCTGACACCTGAGGACG
AGGCCAGCGTGTTCACCCCTGGACCGCTTCCCCTGTGGTACCGCCAGGCCTCAGAGCATCCTGCTG
GCAGCTTCGTCTTCAACCTCCGCTGGGCAGAAAGGACCAGAAAGTGCGGGTGAACCCATGGTGGTGA
CGGCAAGCACAGCTGTGGCGGTGACCGTGGACAAGAGGACAGCCATTGCTGCAGCCGCGGGCGTCC
AAATGAAGCTGGAATTCCCTCCAGCGCAAATTTCTGGGCGGCAACGCGGAGTGCAGCACTGTGGATG
GGCCGTGCACACAGAGCTGCGAGGACAGTGATCTGGACTGCTTCGTATCGACAACAACGGGTTCA
TTCTGATCTCCAAGAGGTCCCAGAGACGGGAAGATTTCTGGGGGAGGTGGATGGTGTCTCTGA
CCCAGCTGCTCAGCATGGGGGTGTTTACGCCAAGTGACTATGTATGACTATCAGGCCATGTGCAAAC
CCTCGAGTCAACCACAGTGCAGCCCAGCCCCCTGGTTCAGCCCAATTTCTGCCTTCTTGACGGCGA
CCAGGTGGCTGCTGCAGGAGCTGGTGTCTTCTGCTGGAGTGGAGTGTCTGGGGCTCCTGGTACG
ACAGAGGGGCCGAGGCCAAAAGTGTCTTCCATCACTCCCACAAACACAAGAAGCAGGACCCGCTGC
AGCCCTGCGACACGGAGTACCCCGTGTTCGTGTACCAGCCGGCCATCCGGGAGGCCAACGGGATCG
TGGAGTGCGGGGCTGCCAGAAGGTATTTGTGGTGCAGCAGATTCCCAACAGTAGGCCACTCCTCCTC
TGGTGACAGACCCACCTGTGACTGCAGCATCTTCCCACAGTGTCTGCAGAGGCGACACCAAGTCA
AATATAATGCCTCTGTCAAATGTGACCGGATGCGCTCCCAGAAGCTCCGCCGGCGACAGACTCCT
GCCACGCCCTTCCATCCAGAGGAGAATGCCAGGACTGCGGGCGGCGCTCGGACACCTCAGCCTCGC
CGCCCCCTACTCCTGCTGCCTGTGTGTGCTGGGGGCTACTGCCCCAACTCCTGCGGTGACACCACC
CAGCCTGACCTGTGTTTTGGCAAGGTGATCCTTCCAGAGCCATCCCAAAAAGTCAGCACTGACATG
GGATGCAGCTAACTGCAGTTGGGTGCCCCCAGGCCAACGCTCCTCTCAATCCTGGGCTGGTGGCC
CCTGGCTCCGGAGAATGCTGGATGGAACAGGAAACCAATCACCTGGCACCCTTTCAAGATGCTTC
ATGGTGGCCGGTACCATCTGCCCTAGGTCTCAACATGAGCATACTTCTGACCTAACCTTCTGTCT
CCTCTTCGGGAAGCCAGCGTGAGCTCAGCTTGGACCAAGACAAAATAATTTAGTTCTTCTCTGTACT
CCAGAGTCCAGACCCAGCCAAGAAAGGGTCACTTGTGTTTCTGACCCCTTCTGTGCGAGTGGTCTCTG
GTAGAACCCAAGGACTTCTGGGTACTGAGAAGCAGCAGCAGAATGAGGCCAAATGCAGAGATGAGG
CTAAGGCAAGAATATGCCCCAACTAAAGCATAGATTCCCCAAAGTGAGGCTCATGGTGGGAGGCCA
CTCACCTTCTTAGCTGTCTCGAAAAGGTTTTGACTGTGTTGGGGTGGGGGTGGGTAAGGGAAT
GGTCAAGACTGAGAAAGGAATGAAATCCATTCAAGAAATATCGACAGGGCTACACGTGATGTCCCC
AAACTGCTGCTATTGAAGAACTTCCCAAACTTCTTTACAAAGCCCTAAAGGAAAGTTTGCATCTA
TGAAAAGCCAATAGGCTGAGACATCCAATTGCTGCATGGAAATTGATGTACATTACAGGGGACGGCA
AAAAAGCTGTAAAATAGTGAAGAGCAGTGTTGTGCTCTTTTCTGGCCAATGATTACAAAA
GAATCTACTTGACTCTGTCCCTGGAGTGAAATCCTTAGGGTTGGAACCTGTGGGGAACATTCCAAC
TGCTAAGCAGGGTCCACTGGGAGGGAAGCTCTATCTGGGAACCTACCCCCAGCGCACACATCTC
CCCCAGGGTCCCAAGGCCCCGAGCTTCTCCCCCGACCAACCCCAAGACCTGGATCCCAGGAGA
CAACAGTCTCCACATGAGAGCAACATTAAGGGCAAAGCCATGGAGAAATGTGGGAGAGGCCGGCCT
CAATCTTTCCATTTAACAACCCCCAGTGATGGGTATGGACAGCATGCAGGGCTTTTGGGGCGCTT
CCCCCGCTCCTCCATCACCTCAGCCTCCACACTTCAAAGTTCAAAGTTCAAAGCTGTTCAGTTT
CCTACCAGCAAATAGCCCTAAGCTTGCCTCTAGAGTAGGCCAAATGCCAACTCTGTAAAAACACACTT
ACATTATCGGTTACAGAATGTCACTCTTACCATCATGTCTTGCAACAACCCTGTGAGGGCAGTATT
AATGCCCCCTTACAGCAGAAGCACTGCAGCTCGAAGACAGCTTAAGTGGCAGAAATAATGTAGAA
CAGCTAAGGTTTACATGTACCAATAACATGTTTCAGCTCATTCCATCCTCACAACAGCCCCCTGA
AAGTGGGTACTATCATTAGTCCCATGTTATAGAACTGCAGCAGAGTTGAAAATTGCCTCCAAATT
ACCGGAAGAGTGTATGAAGATTGAATGTGATGTATTACGTAACATGCTTGAAACTGCCTGGCATA
TACTAAACGCTAAATAAATACATGCTAACTGCAAAAAAAAAAAAAAAAAAAAAA

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: human variant $\alpha 2\delta$ -D, EDGE screen

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 16:

CCATGCCTGCAACTCCCAACTTCCTCGCAAACCCCAGCTCCAGCAGCCGCTGGATTCCCCCTCCAGC
CAATGCCCCGTGGCCTGGGCCTTTGTGCAGAAGACCTCGGCCCTCCTGTGGCTGCTGCTTCTAGGCA
CCTCCCTGTCCCCTGCGTGGGGACAGGCCAAGATTCTCTGAAACAGTGAAGCTATGGGCTGACA
CCTTCGGCGGGACCTGTATAACACTGTGACCAAATACTCAGGCTCTCTCTTGCTGCAGAAGAAGT
ACAAGGATGTGGAGTCCAGTCTGAAGATCGAGGAGGTGGATGGCTTGGAGCTGGTGAGGAAGTTCT
CAGAGGACATGGAGAACATGCTGCGGAGGAAAGTCGAGGCGGTCCAGAATCTGGTGGAAGCTGCCG
AGGAGGCCGACCTGAACCACGAATTCAATGAATCCCTGGTGTTCGACTATTACAACCTCGGTCCTGA
TCAACGAGAGGGACGAGAAGGGCAACTTCGTGGAGCTGGGCGCCGAGTTCCTCCTGGAGTCCAATG
CTCACTTCAGCAACCTGCCGGTGAACACCTCCATCAGCAGCGTGCAGCTGCCCCACCAACGTGTACA
ACAAAGACCCAGATATTTTAAATGGAGTCTACATGTCTGAAGCCTTGAATGCTGTCTTCGTGGAGA
ACTTCCAGAGAGACCCAACGTTGACCTGGCAATATTTGGCAGTGCAACTGGATTCTTCAGGATCT
ATCCAGGTATAAAATGGACACCTGATGAGAATGGAGTCATTACTTTTGACTGCCGAAACCCGGCT
GGTACATTCAGCTGCTACTTCTCCCAAGGACATAGTGAATTTTGGTGGACGTGAGCGGCAGTATGA
AGGGGCTGAGGATGACTATTGCCAAGCACACCATCACCACCATCTTGGACACCCTGGGGGAGAATG
ACTTCRTTAATATCATAGCGTACAATGACTACGTCCATTACATCGAGCCTTGTTTTAAAGGGATCC
TCGTCCAGGCGGACCGAGACAATCGAGAGCATTTCAAACCTGCTGGTGGAGGAGTTGATGGTCAAAG
GTGTGGGGGTCTGTGGACCAAGCCCTGAGAGAAGCCTTCCAGATCCTGAAGCAGTTCCAAGAGGCCA
AGCAAGGAAGCCTCTGCAACCAGGCCATCATGCTCATCAGCGACGGCGCCGTGGAGGACTACGAGC
CGGTGTTTGAGAAGTATAACTGGCCAGACTGTAAGGTCCGAGTTTTCACCTTACCTCATTGGGAGAG
AAGTGTCTTTTGCTGACCGCATGAAGTGGATTGCATGCAACAACAAGGCTACTACACGCAGATCT
CAACGCTGGCGGACACCCAGGAGAACGTGATGGAATACCTGCACGTGCTCAGCCGCCCCATGGTCA
TCAACCAACGACACGACATCATCTGGACAGAGCCCTACATGGACAGCAAGCTCCTCAGCTCGCAGG
CTCAGAGCCTGACACTGCTCACCACCTGTGGCCATGCCAGTCTTCAGCAAGAAGAACGAAACGCGAT
CCCATGGCATTTCTCTGGGTGTGGTGGGCTCAGATGTGGCCCTGAGAGAGCTGATGAAGCTGGCGC
CCCGGTACAAGCTTGGAGTGCACGGATACGCCTTTCTGAACACCAACAATGGCTACATCCTCTCCC
ATCCCGACCTCCGGCCCCCTGTACAGAGAGGGGAAGAACTAAAACCCAAACCTAACTACAACAGTG
TGGATCTCTCCGAAGTGGAGTGGGAAGACCAGGCTGAATCTCTGAGAACAGCCATGATCAATAGGG
AAACAGGTACTCTCTCGATGGATGTGAAGGTCCGATGGATAAAGGGAAGCGAGTTCTTTTCCTGA
CCAATGACTACTTCTTCACGGACATCAGCGACACCCCTTTCAGTTTGGGGGTGGTGTGTCTCCCGG
GCCACGGAGAATACATCCTTCTGGGGAACACGTCTGTGGAAGAAGGCCTGCATGACTTGCTTCACC
CAGACCTGGCCCTGGCCGGTGACTGGATCTACTGCATCACAGATATTGACCCAGACCACCGGAAGC
TCAGCCAGCTAGAGGCCATGATCCGCTTCCCTCACCAGGAAGGACCCAGACCTGGAGTGTGACGAGG
AGCTGGTCCGGGAGGTGCTGTTTGACGCGGTGGTGACAGCCCCCATGGAAGCCTACTGGACAGCGC
TGGCCCTCAACATGTCCGAGGAGTCTGAACACGTGGTGGACATGGCCTTCCCTGGGCACCCGGGCTG
GCCTCCTGAGAAGCAGCTTGTTTCGTGGGCTCCGAGAAGGTCTCCGACAGGAAGTTCCCTGACACCTG
AGGACGAGGCCAGCGTGTTACCCCTGGACCGCTTCCCGCTGTGGTACCGCCAGGCCTCAGAGCATC
CTGCTGGCAGCTTCGTCTTCAACCTCCGCTGGGCAGAAGGACCAGAAAGTGCGGGTGAACCCATGG
TGGTGACGGCAAGCACAGCTGTGGCGGTGACCGTGGACAAGAGGACAGCCATTGCTGCAGCCGCGG
GCGTCCAAATGAAGCTGGAATTCCTCCAGCGCAAATTCCTGGGCGGCAACGCGGAGTGCAGCACTG
TGGATGGGCGGTGCACACAGAGCTGCGAGGACAGTGATCTGGACTGCTTCGTATCGACAACAACG
GGTTCATTCTGATCTCCAAGAGGTCCCCGAGAGACGGGAAGATTTCTGGGGGAGGTGGATGGTGTCTG
TCCTGACCCAGCTGCTCAGCATGGGGGTGTTTCAGCCAAGTGAATGATGACTATCAGGCCATGT
GCAAACCCCTCGAGTCAACCACACAGTGCAGCCAGCCCCCTGGTCAGCCCAATTTCTGCCTTCTTGA

CGGCGACCAGGTGGCTGCTGCAGGAGCTGGTGTCTGTGAGTGGGGGTAGACACGGGGCTGGTGGAG
GCTGTCATGCGAGGGTGGCTTAGGAGGGTGTCTTGGATCAGGAGGCTGCAAGGTCTCCAGGACAACC
CACTTGCTACCAAGACCCCGGGGAAGGAGGGGCACAATCCCTGGGCATGGACGCCACCTCTTCCCTG
CATGCTTGCCCCCTGGGAGGGACCTCATTGCTCAACCAGAGCCCCCAAGCAGGGAAGAGGGTGTCTT
GGAGGAGAGGGGATGGGCCGGGGGCTGTCAGGGATACTCCAGCTCCTTGGGAACCCAAGTCGGGAG
GGCTCAGAGGTCTCCGAGATTCAGTCCTGTGTCTGACAGGTTCTTGCTGGAGTGGAGTGTCTGGGG
CTCCTGGTACGACAGAGGGGCCGAGGGTGAGTGCACGGAGCTGCAGGGCCATGTGCTGAAGAGCAG
TGGCATTTTTGGTCCACTAACGTGAGACCATTCCCTGTGGGGTGGGTGACAGTGGGGATAGGTGACC
CTGAAGCATCGTTGTTTACATCTCACCTGCGTGGCCTTCTCTCATCACATCCCTCACTCCTGGCT
CTGTGTGTGACATCATCTTGGGACACCGCCACTCCATGTGCCATCATCACCACCCCATGACATCCT
GCCCTCATGTGCCACCATGTTTTCTGTGCCGTGTCCACCCTGTGCTGGGCTTATGTTCCGGCCAG
CCAAAAGTGTCTTCCATCACTCCCAACAACACAAGAAGCAGGACCCGCTGCAGCCCTGCGACACGG
AGTACCCCGTGTTCGTGTACCAGCCGG:CCATCCGGGAGGCCAACGGGATCGTGGAGTGGGGCCCC
TGCCAGAAGGTATTTGTGGTGCAGCAGATTCCCAACAGTAACCTCCTCCTCCTGGTGACAGACCCC
ACCTGTGACTGCAGCATCTTCCCACCAAGTGTGTCAGGAGGCGACAGAAGTCAAATATAATGCTCT
GTCAAATGTGACCGGATGCGCTCCCAAGCTCCGCCGGCGACCAGACTCCTGCCACGCCTTCCAT
CCAGAGGAGAATGCCCAGGACTGCGGYGGCGCCTCGGACACCTCAGCCTCGCCGCCCCCTACTCCTG
CTGCCTGTGTGTGCCCTGGGGGCTACTGCCCAACTCCTGCGGTGACACCACCCAGCCTGACCTGTG
TTTTGGCAAGGTGATCCTTCCAGAGCCATCCCAAAAAGTCAGCACTGACATGGGATGCAGCTAACT
GCAGTTGGGTGCCCCCAGGCCAACGCTCCTCTCAATCCTGGGCTGGTGGCCCCCTGGCTCCGGAGA
ATGCTGGATGGAACAGGAAACCAATCACCTGGCACCACCTTTCAGATGCTTCATGGTGGCCGGTAC
CATCTGCCCTAGGTCTCAACATGAGCATACTTCTGACCTAACCTTCTCTGTCTCCTCTTCGGGAAGC
CAGCGTGAGCTCAGCTTGGACCAAGACAAAATAATTTAGTTCTTCTGTACTCCAGAGTCCAGACC
CAGCCAAGAAAGGGTCAGTTGTTTCTGACCCTTTCTGTGCGAGTGGTCTCTGGTAGAACCCAAGGA
CTTCTGGGTACTGAGAAGCAGCAGCAGAATGAGGCCAAATGCAGAGATGAGGCTAAGGCAAGAATA
TGCCCCAACTAAAGCATAGATTCCCCAAAGTGAGGCTCATGGTGGGAGGCCACTCACCTTCTAGC
TGCTGCTCGAAAAGGTTTTGACTGTGTTGGGGTGGGGGTGGGTAAGGGAATGGTCAAGACTGAGA
AAGGAATGAAATCCATTCAGGAAATATCGACAGGGCTACACGTGATGTCCCCAAACTGCTGCTATT
GAAGAACTTCCCAAACTTCTTTACAAAGCCCTAAAGGAAAGTTTGCATCTATGAAAAGCCAATAG
GCTGAGACATCCAATTGCTGCATGGAATTGATGTACATTCAGGGGACGGCAAAAATAGCTGTAAA
ATAGTGAAAAAGAGCAGTGGTTGTGCTCTTTTCTGGCCAATGATTTACAAAAGAATCTACTTGACT
CTGTCCCTGGAGTGAAATCCTTAGGGTTGGAACCTGTGGGAACATTCCAACCTTGCTAAGCAGGGTC
CACTGGGAGGGAAGCTCTATCTGGGAACCTACCCCCAGCGCACACACATCTCCCCAGGGTCCCAA
GGCCCCGAGCTTCTTCCCCCGACCAAAACCCCAAGACCTGGATCCCAGGAGACAACAGTCTCCACA
TGAGAGCAACATTAAGGGCAAAGCCATGGAGAAATGTGGGAGAGGCGGCCTCAAATCTTCCATT
TAACAAACCCCAAGTGATGGGTATGGACAGCATGCAGGGCTTTTGGGGCGCTTCCCCCGCTCCTCC
ATCACCTCAGCCTCCACACTTCAAAGTTCAAGTTCAAAGCTGTTCAAGTTTCTACCAGCAAATA
GCCCTAACTTGCTCTAGAGTAGGCCAAATGCCAACTCTGTAAAACACACTTACATTATCGGTTAC
AGAATGTCACTCTTACCATCATGTCTTGCAACAACCCGTGTGAGGGCAGTATTAATGCCCCCTTACA
GCAGAAGACACTGCAGCTCGAAGACAGCTTAAGTGGCAGAATAATGCTAGAACAGCTAAGGTTTAC
ATGTACCAAATAACATGTTTCACTCATTCATCCTCACACAGCCCCCTGAAAGTGGGTACTATC
ATTAGTCCCATGTTATAGAACTGCAGCAGAGTTGAAAATTGCCTCCAAATTACCGGAAGAGTGTA
TGAAGATTGAATGTGATGTATTACGTAACATGCTTGAAACTGCCTGGCATATACTAAACGCTAAA
TAAATACATGCTAACTGCAAAAAAAAAAAAAAAAAAAAA

(2) INFORMATION FOR SEQ ID NO: 17

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH:
 - (B) TYPE:
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: protein
- (ix) FEATURE:
 - (A) NAME/KEY:
 - (B) LOCATION:

(D) OTHER INFORMATION: human variant $\alpha 2\delta$ -D, EDGE screen

(iii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 17:

MPATPNFLANPSSSSRWIPLQMPVAWAFVQKTSALLWLLLLGTSLSPAWGQAKIPLETV
KLWADTFGGDLYNTVTKYSGSLLLQKKYKDVESLKIEVDGLELVRKFSEDMENMLRR
KVEAVQNLVEAAEEADLNHEFNESLVFDYYNSVLINERDEKGNFVELGAEFLLSNAHFS
NLPVNTSISSVQLPTNVYNKDPDILNGVYMSEALNAVFVENFQRDPTLTWQYFGSATGFF
RIYPGIKWTPDENGVTDFCRNRGWYIQAATSPKDIVILVDVSGSMKGLRMTIAKHTITIL
DTLGENDFVNIHAYNDYVHYIEPCFKGILVQADRDNREHFKLLVEELMVKGVGVDQALR
EAFQILKQFQEAQGSCLCNQAIMLISDGAVEDYEPVFEKYNWPDCKVRVFTYLIGREVSF
ADRMKWIACNNKGGYTTQISTLADTQENVMEYLHVLSRPMVINHDHDIIWTEAYMDSKLL
SSQAQSLTLLTTVAMPVFSSKKNETRSHGILLGVVGSVALRELMLAPRYKLGVBHGYAFL
NTNNGYILSHPDRLPLYREGKKLKPKPNYSVDLSEVEWEDQAESKRVLFLTNDYFFTDI
SDTPFSLGVVLSRGHGEYILLGNTSVEEGLHDLHPDLALAGDWIYCITDIDPDHRKLSQL
EAMIRFLTRKDPDLECDEELVREVLFDVVTAPMEAYWTALALNMSESEHVVDMAFLG
TRAGLLRSSLFVGSEKVS DRKFLTPEDASVFTLDRFPLWYRQASEHPAGSFVFNLRWAE
GPESAGEPMVVTASTAVAVTVDKRTAIAAAAGVQMKLEFLQRKFWAATRQCSTVDGPC
TQSCEDSDLDLDFVIDNNGFILISKRSRETGRFLGEVDGAVLTQLLSMGVFSQVTMYDYQA
MCKPSSHHHSAQAQPLVSPISAFLTATRLLQELVLFLEWSVWGSWYDRGAEAKSVFHH
SHKHKKKQDPLQPCDTEYPVFVYQPAIREANGIVECGPCQKVFFVQQIPNSNLLLVTDPCT
DCSIFPPVLQEATEVKYNASVKCDRMRSQKLRRRPDSCHAFHPEENAQDCGGASDTSASP
PLLLLPVCAWGLLPQLLR

(2) INFORMATION FOR SEQ ID NO: 18

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:

(B) TYPE:

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: 5' primer for human $\alpha 2\delta$ -D

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 18:

GCGAGGACAGTGATCTGG

(2) INFORMATION FOR SEQ ID NO: 19

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:

(B) TYPE:

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: 3' primer for human $\alpha 2\delta$ -D

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 19:

GGGTCCTCGTTCTTGTGTTT

(2) INFORMATION FOR SEQ ID NO: 20

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:

(B) TYPE:

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: nested primer for human $\alpha 2\delta$ -D

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 20:

TCAGCCTCCACACTTCAAAG

(2) INFORMATION FOR SEQ ID NO: 21

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:

(B) TYPE:

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: primer for human $\alpha 2\delta$ -D

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 21:

TCCGCCTGGACGAGGATCC

(2) INFORMATION FOR SEQ ID NO: 22

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: primer for human $\alpha 2\delta$ -D

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 22:

GTGTCCAAGATGGTGGTGAT

(2) INFORMATION FOR SEQ ID NO: 23

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: primer for human $\alpha 2\delta$ -D (d20)

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 23:

ATCTACTGCATCACAGATATTG

(2) INFORMATION FOR SEQ ID NO: 24

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: primer for human $\alpha 2\delta$ -D ($\alpha 2\delta$ D2)

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 24:

GGTGAGGAAGCGGATCATG

(2) INFORMATION FOR SEQ ID NO: 25

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: 5' primer mouse genomic of $\alpha 2\delta$ -B

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 25:

TTCAACGAGAAGGCACAGCCT

(2) INFORMATION FOR SEQ ID NO: 26

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: 3' primer mouse genomic of $\alpha 2\delta$ -B

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 26:

GTTGGCACAGGCCATCCACTG

(2) INFORMATION FOR SEQ ID NO: 27

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: primer for sequencing mouse genomic,
based on human

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 27:
AGGCTGTGCCTTCTCGTTGAA

(2) INFORMATION FOR SEQ ID NO: 28

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH:
 (B) TYPE:
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence
(B) LOCATION:

(D) OTHER INFORMATION: primer for sequencing mouse genomic,
based on human

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 28:
GAGCCCCCAAGAAGATCG

(2) INFORMATION FOR SEQ ID NO: 29

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH:
 (B) TYPE:
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence
(B) LOCATION:

(D) OTHER INFORMATION: primer for sequencing mouse genomic,
based on human

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 29:
CGATCTTCTTGGGGGCTC

(2) INFORMATION FOR SEQ ID NO: 30

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH:
 (B) TYPE:
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(ix) FEATURE:
 (A) NAME/KEY: Coding Sequence
 (B) LOCATION:
 (D) OTHER INFORMATION: primer for sequencing mouse genomic,
based on human
(iii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 30:
CACGATGATGACCATGTC

(2) INFORMATION FOR SEQ ID NO: 31

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH:
 (B) TYPE:
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(ix) FEATURE:
 (A) NAME/KEY: Coding Sequence
 (B) LOCATION:
 (D) OTHER INFORMATION: primer for sequencing mouse genomic,
based on mouse
(iii) MOLECULE TYPE: cDNA
(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 31:
GGCAAGACCCTACACTGTTG

(2) INFORMATION FOR SEQ ID NO: 32

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH:
 (B) TYPE:
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(ix) FEATURE:
 (A) NAME/KEY: Coding Sequence
 (B) LOCATION:

(D) OTHER INFORMATION: primer for sequencing mouse genomic,
based on mouse

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 32:
CCTGGTAATAGCGAGTGAC

(2) INFORMATION FOR SEQ ID NO: 33

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: 5' genomic sequence from 10kb
fragment for mouse $\alpha 2\delta$ -B

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 33:
AAGCTTCTCTCTCATCACCAGGAGGAAGACATCATGTACTACGATGCCAAGGCTGACG
CCGAGCTGGTAAGTGTCCCCACCTTTGCCGTAGAGGATGGGGAGCAGCCAGAGCCAC
ACCTTGTTCTTCTGGGCCACAACAGTCTCAGCTGTAAAGTGGGTGTTAGGGATCCATG
CTCACCTTTCTGAACTCAACCATTCTGTGTCGTGCTTGGTCAGCCTCTCCTTGTCCACA
GCTCCCTAGAGATCCTTGACCCTCCAGGGCGTGTCTTCATCACCATTATAGGCTAAGC
TCCCCCTGCACCATGTGGAGCAAGCAGGGTGGTAGAGTGTTGGATATCAGGGTGGTTC
CATCCCAGTATGAGGGGCTCTCTGGGCTCCATGGGAGTAGAGAGGAGAAAGAAATGG
ACTCCAGGACCTCCTGGGGTAGGTACATGGGAGTGAGACATGGTGACATCTAAGCCC
TGCCCAGGACAGTAGAGGCTCCTTTCCTTGTGATTTGGGGAACTTTGCATCAAGCTAT
GTAGAAGAACCCATGG

(2) INFORMATION FOR SEQ ID NO: 34

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: 3' genomic sequence from 10kb
fragment for mouse $\alpha 2\delta$ -B

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 34:

CAGGTGGCCTGTGGCTGGGCCCCTTCTCTGAACACTCACAGTGGAGACAGGGCTGGCC
ACAGNAGACCCCATCCTTCTCTCCCTTCAGGGGCTGGGGTTGGTGGTAACAGGAACTT
CTCCCTGTTTTCAACCTGACACAGGATGGCCCTGGGGAAAAGAAGGTGAGTTGCCAG
TGGGTTATCTGGGGAGGAGTTGGCATGCCTGGAGCAGGTCTGGGGATGGAGGAGGGT
TAGGGCATGCTACAGATTTGGCAAAGCAGCTCTCCGTATCAGCAGCTTAGCCCTTAGG
CCTGGGCCAGGGGGTTCTACTATGGAGTTGACTCATTATAGCATACCTTCCCATTCTT
TGTGTCCAGAACCAGTTAATCCTGGGTGTCATGGGCATCGATGTGGCCTTGAATGACA
TCAAAGGCTGACTCCCAACTACACAGTAAGTGTCCACCTGCCCCTCTGCCCTGGTTT
GCTGTCCATAGTGACACAAGCCAGACTCAGCAGGGGAGACATGGGGACTGAAAGACC
GTCACAGAAAGACTTCCCAAAGGGTTTGTCTGAAGCTGTGGACAGCAAGC

(2) INFORMATION FOR SEQ ID NO: 35

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:

(B) TYPE:

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: 1.8 kb mouse genomic sequence for
mouse $\alpha 2\delta$ -B

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 35:

GCTTTCTTGTGGCTGCGGGCCTTGGAGTGCATGCTGAGTGGGTGAGCTCCCTGGGGGC
CGGCTGCAGGCTCCAGGCAAGCATGCTGGATGGGGGCCAGCTCACAGCTCCCTGCC
ACCCAGGCGGCCCTTCTCCACAGGCCACAAACCACATCAGCCCTGCTTGCTACCCGAG
GCCTGGATGAGGGGTAGGCTGAGATATTTCTTTGATGATTAGAGGAGGAGAGCAA
GAAATCTCCCTGGAAGAGCTGGTGTGGCCCCACATGAGATCCTGGGAAATCAAGAA
AAGCCTGGGCAGGCAGAAAGCAGGGGAGGCCATGGAGATGGGTTTAGCAGGGGGCG
ACCCTGAACCTCCCAACCCAGCCTTCTGCCCTGCCCTCAGCTACCGTCATCCTCAAT
GAGCTTAACTGGACAGAGGCCCTGGAGAACGTCTTCATTGAGAACCGTAGGCAAGAC
CCTACACTGTTGTGGCAAGTCTTTGGCAGTGCCACGGGAGTCACTCGCTATTACCCAG
GTAGGCACCACTGTCTCCCTGGCCCATCCAGCACCCGTCTTGCTCCATCTCCAAGCCTA
CCCATTCTGAGGTCCATGGGGTACAATGAACCAGGTCAATCCCCATCACTCCCGCCTG
CTCCAGTCAGACCCTTCTGCCGGGGCCGGGGCCCCTTACCCCCCTCTTTCCACAGCCACAC
CATGGCGAGCCCCCAAGAAGATTGACCTGTACGATGTCAGAAGACGACCCTGGTGAG
TGAGCAAGGGGGGTGGAGGCGAGACACCCCTCAACTCCCCATCTCTCGTGCCCGCTC
CCCTCCCTCCCAATATCCAGACCTCCGAGCAGGGCGCAGCCAGCTCTATCCAATTTTC
ATTTACACATCGCTGCCACTGGAAAATGGATCCCATCGCCCAGGCAAGCCGCCAGC
TGCCTCTGCCCCACGCGTGTCTGCTCCACTACCCAGCCCCCCCCACACCACTCAGAACT
GAGAGCAGACCAGGGAAGGTGCTTCCAGGGGTAGCTAGAGCCTCCGTCAGGTCAGCC
GGCCCCACCTACTCATTGATCCCTGGACACCCCGACCCTCTGCTCTGCCTCTCTCACA
CTACTCCATGATCTTCCCTCCCTCCTCCATTACACAGCCAGACTCTCTGGAGTCTCTCT
AGGACAGAGGACACAAGCCACTAAAGCCTTCTGTCCCCGTGGATCACCTGCCCCCTTCC
CCCTCACCTCTTGTTTACTTAATGAGGGAACCAGATCACTCACGTCACAAGAAAAAAA
AAACTGTCTTTTGTATTGAGCATGGTCTCCCCAGTGCCAGACCTATTCCAACCCCTG

TAGTGCGTGGTCAGTAGAAACACAGGAATCAAGTGGGTGGAAGAAGGAAGACCCCGC
AGGTCCCGGAGGTGCCGTCCTTAAGTGAAGTCTTCTCACTGGCAGGTATATACAGGGGG
CCTCATCACCCAAGGACATGGTCATCATTGTGGATGTGTGAGTGAGCCTTGTAGGCTG
GTGGGATGGGCTAGGACTGGACTCTGCTTCTGGGCACCTTATGAGGGAAGGGCGGG
AAAACCTGAGAGCCACATGCATGCGCCCCCTTCCGTGCCTGGTTTCCAGGAGTGGG
AGCGTGAGCGGCCTGACTCTGAAGCTGATGAAGACGTCCGTCTGTGAGATGCTAGAC
ACGCTCTCTGATGATGACTATGTGAACGTGGCCTCAGTGAGTGGCAAGGTGGCAGGC
AGGCTGGGTACCACTCACCCCATCCAACCTGCTCCCATGACAACCATCAGCCCTGTA
CAACAGCTGCACACTGTGTGGCCAGCCTGAAGCCACTCACCAACCCCACTGTCCCCA
CAG

(2) INFORMATION FOR SEQ ID NO: 36

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: 5' primers to amplify rat sequences for

$\alpha 2\delta$ -C, PCR 1

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 36:

GACAGGACCAACAAGGAGCAC

(2) INFORMATION FOR SEQ ID NO: 37

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: 3' primers to amplify rat sequences for

$\alpha 2\delta$ -C, PCR 1

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 37:

GCCAACCACACCCAGAAGAAT

(2) INFORMATION FOR SEQ ID NO: 38

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: 5' primers to amplify rat sequences for

$\alpha 2\delta$ -C, PCR 5

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 38:

AACGCACCATCAAGGAGACCA

(2) INFORMATION FOR SEQ ID NO: 39

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: 3' primers to amplify rat sequences for

$\alpha 2\delta$ -C, PCR 5

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 39:

AGGGGCAGCAGCAGCAAG

(2) INFORMATION FOR SEQ ID NO: 40

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: PCR1 product, rat $\alpha 2\delta$ -C

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 40:

TTCAGGGAGCATTGTTGGACAACTTTTTGCCAAAGGGATTGGAATGCTCGATATTGCGCTGAACGAG
GCCTTCAATGTACTGAGCGATTTCACCCACACCGGACAAGGAAGCATTGTCAGCCAGGCCATTATG
CTCATAACCGATGGGGCARTGGACACCTACGAYACCATCTTTGCAAAGTACAATTGGCCAGAGCGA
AAGGTTGGAATCTTCACTTACCTCATTGGACGAGAGGCTGCTTTTGCAGACAATCTCAAGTGGATR
GCTTGTGCTAACAAAGGATTTTTCACCCAGATCTCCACCTTGGCTGATGTGCAGGAAAATGTCATG
GAATACCTCCATGTACTCAGTCGACCCAAAGTCATCGACCAGGAACATGATGTGGTGTGGACCGAA
GCGTACATCGACAGCACTCTCCCTCAGGCTCAAAAGCTTGCTGATGATCAGGGCCTCGTCTTGATG
ACCACAGTGGCCATGCCTGTGTTTAGTAAGCAGAACGAACTAGGTCAAAGGGC

(2) INFORMATION FOR SEQ ID NO: 41

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:

(B) TYPE:

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: PCR5 product, rat $\alpha 2\delta$ -C

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 41:

CAGGGAACATTGCTTGTGAAGAYTGCTCCAAGTCCTTTGTCATCCAGCAAATCCCAAGTAGCAATC
TGTTTCATGGYGGTGGTGGACAGTAGCTGTCTGTGAGTCTGTGGCTCCTATCACCATGGCACCCCA
TTGAAATCAGGTATAATGAATCCCTTAAGTGTGAACGGTTAAAGGCTCAGAAGATCAGACGACGTC
CGGAATCCTGCCACGGCTTCCATCTGAGGAGAATGCGAGAGAGTGTGGGGGTGCATCAAGTCTCC
AGGCCCAGGT

(2) INFORMATION FOR SEQ ID NO: 42

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH:

(B) TYPE:

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(ii) MOLECULE TYPE: protein

(ix) FEATURE:

(A) NAME/KEY:

(B) LOCATION:

(D) OTHER INFORMATION: Human $\alpha 2\delta$ -D variant

(iii) MOLECULE TYPE: protein

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 42:

MPATPNFLANPSSSRWIPLQMPVAFVQKTSALLWLLLLGTSLSPAWGQAKIPLETV
KLWADTFGGDLYNTVTKYSGSLLLQKKYKDVESLKIEVDGLELVRKFSEDMENMLRR
KVEAVQNLVEAAEEADLNHEFNESLVFDYNSVLINERDEKGNFVELGAEFLLSNAHFS
NLPVNTSISSVQLPTNVYNKDPDILNGVYMSEALNAVVFENFQRDPTLTWQYFGSATGFF
RIYPGIKWTPDENGIVITFDCNRGWYIQAATSPKDIVILVDVSGSMKGLRMTIAKHTITI
LDTLGENDFXNIIAYNDYVHYIEPCFKILVQADRDNREHFLLVEELMVKGVGVDQAL
REAFQILKQFQEAQKQSLCNQAIMLISDGAVEDYEPVFEKYNWPDCKVRVFTYLGREVSF
ADRMKWIACNNKGYYTQISTLADTQENVMEYLHVLSRPMVINHDHDIWTEAYMDSKLL
SSQAQSLTLLTTVAMPVFSKKNETRSHGILLGVVGSVALRELMKLAPRYKLGVBHGYAFL
NTNNGYILSHPDRLPLYREGKKLPKPNYNSVDLSEVEWEDAESLRTAMINRETGTLSM
DVKVPMDKGRVLFLLTNDYFFTDISDTPFSLGVVLSRGHGEYILLGNTSVEEGLHDLLHPD
LALAGDWIYCITDIDPDHRKLSQLEAMIRFLTRKDPDLECDEELVREVLFDVAVVTAPMEA
YWTALALNMSESEHVVDMAFLGTRAGLLRSSLFVGSEKVS DRKFLTPEDEASVFTLDRF
PLWYRQASEHPAGSFVFNLRWAEGPESAGEPMVVTASTAVAVTVDKRTAIAAAAAGVQM
KLEFLQRKFWAATRQCSTVDGPCTQSCEDSDLCFVIDNNGFILISKRSRETGRFLGEVDG
AVLTQLLSMGVFSQVTMYDYQAMCKPSSHHHSAQAFLVSPISAFLTATR WLLQELVLVS
GGRHGAGGGCMRGWLRRVSLIRRLQGLQDNPLATKTPGKEGTIPGHGRHLFPACLP LGG
TSLLNQSPQAGKRVS WRRGDGP GAVRDT PAPWEPKSGGLRGLRDSVLCLTGSCWSGVSG
APGTTEGPRVSARSCRAMC

(2) INFORMATION FOR SEQ ID NO: 43:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

(A) NAME/KEY: Coding Sequence

(B) LOCATION:

(D) OTHER INFORMATION: >1907 α 2 δ -C, potent. soluble form

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 43:

TACTATAGGGCGGCCGCGAATTCGGCACGAGGCGGCGCGGAGCGGAGCAGGCAGCCCCGCGCGCTC
GCCCACCGCCCCGCTCCGCGCAGCTCCCCGCGGCCGCTCTCGTCGCGCGCCGAGCGGGCGCGTCGGA
GGGAGCCCAGCATGGCCGGGCGGGGCTCGCCGCGCCGCGCGTCCCGGGGGCCTCGGCGCTTCTCG
CTGCCGCGCTTCTCTACGCCGCGCTGGGGGACGTGGTGCGCTCGGAGCAGCAGATACCGCTCTCCG
TGGTGAAGCTCTGGGCCTCGGCTTTTGGTGAGGAGATAAAATCCATTGCTGCTAAGTACTCCGGTT
CCCAGCTTCTGCAAAAGAAATACAAAGAGTATGAGAAAGACGTTGCCATAGAAGAAATTGATGGCC
TCCAACCTGGTAAAGAAGCTGGCAAAGAACATGGAAGAGATGTTTACAAGAAGTCTGAGGCCGTCA
GGCGTCTGGTGGAGGCTGCAGAAGAAGCACACCTGAAACATGAATTTGATGCAGACTTACAGTATG
AATACTTCAATGCTGTGCTGATAAATGAAAGGGACAAAGACGGGAATTTTTTGGAGCTGGGAAAGG
AATTCATCTTAGCCCCAAATGACCATTTTAATAATTTGCCTGTGAACATCAGTCTAAGTGACGTCC
AAGTACCAACGAACATGTACAACAAAGACCCTGCAATTGTCAATGGGGTTTATTGGTCTGAATCTC
TAAACAAAGTTTTTGTAGATAACTTTGACCGTGACCCATCTCTCATATGGCAGTACTTTGGAAGTG
CAAAGGGCTTTTTTAGGCAGTATCCGGGGATTAAATGGGAACCAGATGAGAATGGAGTCATTGCCT
TCGACTGCAGGAACCGAAAATGGTACATCCAGGCAGCAACTTCTCCGAAAGACGTGGTCATTTTAG
TTGACGTCAGTGGCAGCATGAAAGGACTCCGCTGACTATCGCGAAGCAAACAGTCTCATCCATTT
TGGATACACTTGGGGATGATGACTTCTTCAACATAATTGCTTATAATGAGGAGCTTCACTATGTGG
AACCTTGCCCTGAATGGAACCTTGGTGCAAGCCGACAGGACAAACAAAGAGCACTTCAGGGAGCATC

TGGACAAACTTTTCGCCAAAGGAATTGGAATGTTGGATATAGYTCTGAATGAGGCCTTCAACATTC
TGAGTGATTTCAACCACACGGGACAAGGAAGTATCTGCAGTCAGGCCATCATGCTCATAACTGATG
GGGCGGTGGACACCTATGATACAATCTTTGCAAAATACAATTGGCCAGATCGAAAGGTTTCGCATCT
TCACATACCTCATTGGACGAGAGGCTGCGTTTGACAGACAATCTAAAGTGGATGGCCTGTGCCAACA
AAGGATTTTTTACCCAGATCTCCACCTTGGCTGATGTGCAGGAGAATGTCATGGAATACCTTCACG
TGCTTAGCCGGCCCCAAAGTCATCGACCAGGAGCATGATGTGGTGTGGACCGAAGCTTACATTGACA
GCACTCTGACTGATGATCAGGGCCCCGTCCTGATGACCACTGTAGCCATGCCTGTGTTTAGTAAGC
AGAACGAAACCAGATCGAAGGGCATTCTTCTGGGAGTGGTTGGCACAGATGTCCAGTGAAAAGAAC
TTCTGAAGACCATCCCCAAATACAAGTTAGGGATTACGGTTATGCCTTTGCAATCACAAATAATG
GATATATCCTGACGCATCCGGAACCTCAGGCTGCTGTACGAAGAAGGAAAAAGCGAAGGAAACCTA
ACTATAGTAGCGTTGACCTCTCTGAGGTGGAGTGGGAAGACCGAGATGACGTGTTGAGAAATGCTA
TGGTGAATCGAAAGACGGGGAAGTTTTCCATGGAGGTGAAGAAGACAGTGGACAAAGGGGTACATT
TTTCTCAAACATTTTTGCTGCTTAATTTAAAAACAAACCACTGTGAAAAATTAGCTTTGAAAGCTAT
ATCTGGAATAAATATCTTTCGCTGAAGG

(2) INFORMATION FOR SEQ ID NO: 44:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

- (A) NAME/KEY: Coding Sequence
- (B) LOCATION:
- (D) OTHER INFORMATION: $\alpha 2\delta$ -C, (2686-2745, 2892-3001)

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 44:

TACTATAGGGCGGCCGCGAATTTCGGCACGAGGCGGCGCGGAGCGGAGCAGGCAGCCCCGCGCGCTC
GCCCACCGCCCCGCTCCGCGCAGCTCCCCGCGGCCGCTCTCGTCGCCGCCGCGCAGCGGGCGCGCTCGGA
GGGAGCCCAGCATGGCCGGGCGGGCTCGCCGCGCCGCGCTCCCGGGGGCCTCGGCGCTTCTCG
CTGCCGCGCTTCTCTACGCCGCGCTGGGGGACGTGGTGCCTCGGAGCAGCAGATACCGCTCTCCG
TGGTGAAGCTCTGGGCCCTCGGCTTTTGGTGGGGAGATAAAATCCATTGCTAAGTACTCCGTT
CCCAGCTTCTGCAAAAGAAATACAAAGAGTATGAGAAAGACGTTGCCATAGAAGAAATTGATGGCC
TCCAACCTGGTAAAGAAGCTGGCAAAGAACATGGAAGAGATGTTTCACAAGAAGTCTGAGGCCGTCA
GGCGTCTGGTGGAGGCTGCAGAAGAAGCACACCTGAAACATGAATTTGATGCAGACTTACAGTATG
AATACTTCAATGCTGTGCTGATAAATGAAAGGGACAAAGACGGGAATTTTTTGGAGCTGGGAAAGG
AATTCATCTTAGCCCCAAATGACCATTTTAATAATTTGCCTGTGAACATCAGTCTAAGTGACGTCC
AAGTACCAACGAACATGTACAACAAAGACCTGCAATTGTCAATGGGGTTTATTGGTCTGAATCTC
TAAACAAAGTTTTTTGTAGATAACTTTGACCGTGACCCATCTCTCATATGGCAGTACTTTGGAAGTG
CAAAGGGCTTTTTTAGGCAGTATCCGGGGATTAATGGGAACCAGATGAGAATGGAGTCATTGCCT
TCGACTGCAGGAACCGAAAATGGTACATCCAGGCAGCAACTTCTCCGAAAGACGTGGTCATTTTAG
TTGACGTCAAGTGGCAGCATGAAAGGACTCCGCTGACTATCGCGAAGCAAACAGTCTCATCCATTT
TGGATACACTTGGGGATGATGACTTCTTCAACATAATTGCTTATAATGAGGAGCTTCACTATGTGG
AACCTTGCCCTGAATGGAACCTTGGTGCAAGCCGACAGGACAAACAAAGAGCACTTCAGGGAGCATC
TGGACAAACTTTTCGCCAAAGGAATTGGAATGTTGGATATAGCTCTGAATGAGGCCTTCAACATTC
TGAGTGATTTCAACCACACGGGACAAGGAAGTATCTGCAGTCAGGCCATCATGCTCATAACTGATG
GGGCGGTGGACACCTATGATACAATCTTTGCAAAATACAATTGGCCAGATCGAAAGGTTTCGCATCT
TCACATACCTCATTGGACGAGAGGCTGCGTTTGACAGACAATCTAAAGTGGATGGCCTGTGCCAACA
AAGGATTTTTTACCCAGATCTCCACCTTGGCTGATGTGCAGGAGAATGTCATGGAATACCTTCACG
TGCTTAGCCGGCCCCAAAGTCATCGACCAGGAGCATGATGTGGTGTGGACCGAAGCTTACATTGACA

GCACTCTGACTGATGATCAGGGCCCCGTCCTGATGACCACTGTAGCCATGCCTGTGTTTAGTAAGC
 AGAACGAAACCAGATCGAAGGGCATTCTTCTGGGAGTGGTTGGCACAGATGTCCCAGTGAAAGAAC
 TTCTGAAGACCATCCCCAAATACAAGTTAGGGATTACCGTTATGCCTTTGCAATCACAAATAATG
 GRTATATCCTGACGCATCCGGAACCTCAGGCTGCTGTACGAAGAAGGAAAAAGCGAAGGAAACCTA
 ACTATAGTAGCGTTGACCTCTCTGAGGTGGAGTGGGAAGACCGAGATGACGTGTTGAGAAATGCTA
 TGGTGAATCGAAAGACGGGGAAGTTTTCCATGGAGGTGAAGAAGACAGTGGACAAAAGGGAAACGGG
 TTTTGGTGATGACAAATGACTACTATTATACAGACATCAAGGGTACTCCTTTTCAGTTTAGGTGTGG
 CGCTTTCCAGAGGTCATGGGAAATATTTCTTCCGAGGGAATGTAACCATCGAAGAAGGCCTGCATG
 ACTTAGAACATCCCGATGTGTCTTGGCAGATGAATGGTCTTACTGCAACACTGACCTACACCCTG
 AGCACCGCCATCTGTCTCAGTTAGAAGCGATTAAGCTCTACCTAAAAGGCAAAGAACCTCTGCTCC
 AGTGTGATAAAGAATTGATCCAAGAAGTCCTTTTGTACGCGGTGGTGAGTGCCCCCATTGAAGCGT
 ATTGGACCAGCCTGGCCCTCAACAAATCTGAAAATTCTGACAAGGGCGTGGAGGTTGCCTTCCTCG
 GCACTCGCACGGGCCCTCTCCAGAATCAACCTGTTTGTGCGGGGCTGAGCAGCTCACCAATCAGGACT
 TCCTGAAAGCTGGCGACAAGGAGAACATTTTAAACGCAGACCATTTCCTCTCTGGTACCGAAGAG
 CCGCTGAGCAGATTCCAGGGAGCTTCGTCTACTCGATCCCATTTCAGCACTGGACCAGTCAATAAAA
 GCAATGTGGTGACAGCAAGTACATCCATCCAGCTCCTGGATGAACGGAAATCTCCTGTGAGTGCAG
 CTGTAGGCATTCAGATGAAACTTGAATTTTCCAAAGGAAGTTCTGGACTGCCAGCAGACAGTGTG
 CTTCCCTGGATGGCAAATGCTCCATCAGCTGTGATGATGAGACTGGAGACTTTTTTGGTGAGATCG
 AGGGAGCTGTGATGAACAAATTGCTAACAATGGGCTCCTTTTAAAAGAATTACCCTTTATGACTACC
 AAGCCATGTGTAGAGCCAACAAGGAAAGCAGCGATGGCGCCCATGGCCTCCTGGATCCCAGAAATT
 GAAACAGACCCTGGAGCCTTGTGATACTGAATATCCAGCATTCGTCTCTGAGCGCACCATCAAGGA
 GACTACAGGGAATATTGCTTGTGAAGACTGCTCCAAGTCCTTTGTTCATCCAGCAAATCCCCAAGCAG
 CAACCTGTTTCATGGTGGTGGTGGACAGCAACTGCCTCTGTGAATCTGTGGCCCCCATCACCATGGC
 ACCCATTGAAATCAGGTATAATGAATCCCTTAAGTGTGAACGTCTAAAGGCCCAGAAGATCAGAAG
 GCGCCCAGAATCTTGTTCATGGCTTCCATCCTGAGGAGAATGCAAGGGAGTGTGGGGGTGCGCCGAG
 TCTCCAAGCCCAGACAGTCCTCCTTCTGCTCCCTCTGCTTTTGTGATGCTCTTCTCAAGGTGACACTG
 ACTGAGATGTTCTTCTTACTGACTGAGATGTTCTCTTGGCATGCTAAATCATGGATAAACTGTGAAC
 CAAAATATGGTGCAACATACGAGACATGAATATAGTCCAACCATCAGCATCTCATCATGATTTTAA
 ACTGTGCGTGATATAAACTCTTAAAGATATGTTGACAAAAAGTTATCTATCATCTTTTACTTTGC
 CAGTCATGCAAATGTGAGTTTGGCACATGATAATCACCTTTCATCAGAAATGGGACCGCAAGTGGT
 AGGCAGTGTCCCTTCTGCTTGAACCTATTGAAACCAATTTAAAACCTGTGTACTTTTTAAATAAAG
 TATATTAAATCATAAAAA

(2) INFORMATION FOR SEQ ID NO: 45:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH:
- (B) TYPE:
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

(ii) MOLECULE TYPE: cDNA

(ix) FEATURE:

- (A) NAME/KEY: Coding Sequence
- (B) LOCATION:
- (D) OTHER INFORMATION: adapter primer

(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 45:

CCATCCTAATACGACTCACTATAGGGC

(2) INFORMATION FOR SEQ ID NO: 46:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH:
 (B) TYPE:
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(ix) FEATURE:
 (A) NAME/KEY: Coding Sequence
 (B) LOCATION:
 (D) OTHER INFORMATION: adapter primer
(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 46:
ACTCACTATAGGGCTCGAGCGGC

(2) INFORMATION FOR SEQ ID NO: 47:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH:
 (B) TYPE:
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear
(ii) MOLECULE TYPE: cDNA
(ix) FEATURE:
 (A) NAME/KEY: Coding Sequence
 (B) LOCATION:
 (D) OTHER INFORMATION: probe for Northern blot
(iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 47:
CTGTGAGTGCAGCTGTAGGCATTCAGATGAACTTGAATTTTTCCAAAGGAAGTTCTGGACTGCCA
GCAGACAGTGTGCTTCCCTGGATGGCAAATGCTCCATCAGCTGTGATGATGAGACTGGAGACTTTT
TTGGTGAGATCGAGGGAGCTGTGATGAACAAATTGCTAACAATGGGCTCCTTTAAAAGAATTACCC
TTTATGACTACCAAGCCATGTGTAGAGCCAACAAGGAAAGCAGCGATGGCGCCCATGGCCTCCTGG
ATCCCAGAAATTGAAACAGACCCTGGAGCCTTGTGATACTGAATATCCAGCATTCGTCTCTGAGCG
CACCATCAAGGAGACTACAGGGAATATTGCTTGTGTAAGACTGCTCCAAGTCCTTTGTTCATCCAGCA
AATCCCAAGCAGCAACCTGTTTCATGGTGGTGGTGACAGCAACTGCCTCTGTGAATCTGTGGCCCC
CATCACCATGGCACCCATTGAAATCAGGTATAATGAATCCCTTAAGTGTGAACGTCTAAAGGCCCA
GAAGATCAGAAGGCGCCCGAGAATCTTGTTCATGGCTTCCATCCTGAGGAGAATGCAAGGGAGTGTGG
GGGTGCGCCGAGTCTCCAAGCCCAGACAGTCCTCCTTCTGCTCCCTCTGCTTTTGTATGCTCTTCTC
AAGGTGACACTGACTGAGATGTTCTCTTACTGACTGAGATGTTCTCTTGGCATGCTAAATCATGGA
TAACTGTGAACCAAAATATGGTGCAACATACGAGACATGAATATAGTCCAACCATCAGCATCTCA
TCATGATTTTAAACTGTGCGTGATATAAACTCTTAAAGATATGTTGACAAAAAGTTATCTATCATC
TTTTTACTTTGCCAGTCATGCAAATGTGAGTTTGCCACATGATAATCACCTTCATCAGAAATGGG
ACCGCAAGTGGTAGGCAGTGTCCCTTCTGCTTGAAACCTATTGAAACCAATTTAAACTGTGTACT
TTTTAAATAAAGTATATTAAATCATAAAAAAAAAAAAAAAAAAAAA

(2) INFORMATION FOR SEQ ID NO: 48:

(i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH:
 (B) TYPE:
 (C) STRANDEDNESS: single

- (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: cDNA
- (ix) FEATURE:
 - (A) NAME/KEY: Coding Sequence
 - (B) LOCATION:
 - (D) OTHER INFORMATION: Edge 5' primer
- (iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 48:
CTAGAGGCCATGATCCGCTTCCTCAC

(2) INFORMATION FOR SEQ ID NO: 49:

- (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH:
 - (B) TYPE:
 - (C) STRANDEDNESS: single
 - (D) TOPOLOGY: linear
- (ii) MOLECULE TYPE: cDNA
- (ix) FEATURE:
 - (A) NAME/KEY: Coding Sequence
 - (B) LOCATION:
 - (D) OTHER INFORMATION: Edge 3' primer
- (iii) MOLECULE TYPE: cDNA

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 49:
GCCCACGAACAAGCTGCTTC